COLUMBIA
UNIVERSITY QUARTERLY

VOL. XV DECEMBER, 1912 NO. 1

THE DISCOVERY OF THE MIND*

"MEN are strangers to that with which they are continually familiar." Heraclitus, the Dark, used these words apparently to express his opinion that, while men have minds, they are not ordinarily aware of it. His opinion seems to have been the result of his observation. He saw men speak and act as if mind were a stranger to them, the sort of thing at which dogs bark. Since the barking of dogs is his figure, it is apparent that his words are not the dispassionate statement of his observation. Looked at, however, in the light of the many centuries which have followed them, they may be cited as the simple record of a fact, the fact, namely, that the mind needs repeatedly to be discovered. It is continually there, from the beginning to the end—as Heraclitus says, using Homer's word for a tale fully told—it is continually there, but it must be found.

History might be written in terms of its finding, marking its discovery and loss as the crises of civilization. For such a history the case of Heraclitus himself would be typical. With each new discovery to be recorded one would find an enthusiasm like his possessing the discoverer, the consciousness of insight and of having beheld a great vision, the sense of a new and unlimited power, the laying hold of a new confidence. One would find, on the part of those who had not made the discovery, incredulity, the insight suspected, the vision described as visionary, the power denounced as impotence, and the confidence held to be misplaced. All of which goes to show that the discovery of the mind is a characteristic human experience.

---

* Address delivered at the opening exercises of the one hundred and fifty-ninth academic year, September 25, 1912.

Heraclitus is, perhaps, too remote a figure to touch us of today very intimately. So I repeat a common observation of historians that the discovery of the mind on a large scale was one of the striking events that marked the beginning of modern times. Our historians would, perhaps, be more acute if they said that times are modern when the discovery is made. The finding of the mind is not something incident to an artificial period of time. It is the one event which makes it possible to regard the past as antiquity, the sum of things accomplished, to view the present as opportunity, and to see the future fluid. It is not a characteristic of modernity, but its essence.

Open the books of men like Roger Bacon, Galileo, Francis Bacon, Descartes, Hobbes, Grotius, Newton, and a host of others, and while one finds striking evidence of advances in knowledge along old and established lines, one finds also the consciousness of a new age at its morning. One finds the spirit of inquiry exalted above any admiration of what has been already done. One finds an uncontrollable desire to go on and to progress. One finds an unbounded confidence in the possibility of improving the life of man and of lifting him to the heights. One finds visions of a transformed society without vice, without crime, without idiocy or disease, without poverty or want. One finds these things because those who express them have discovered the mind. They are conscious of the discovery. It is that consciousness which has fired their imaginations and kindled a new insight and a new faith. For how is it that such men as these commend their hopes to others? By their attainments, by their positions, by their inventions, by their wisdom, by their authority? Not at all; but because the mind is discoverable, and to discover it is to share with them the thing that has awakened them.

Let the contrasting picture be unlined. Let us forget, on this occasion, the incredulity which they met and the opposition they aroused. Let us not remember that words spoken in the interest of human progress were heard as the cry of revolution. Because it is on the discovery that our emphasis would fall. What, then, is that discovery? It may be expressed by saying: it is the discovery that the world, although it is moved by its own forces and according to its own laws, is yet controllable just in proportion as it is understood. By itself, it is solid and unyielding; penetrated by the mind, it is fluid and convertible. By itself, it is man's master; through his mind, it is his servant. Expressions of the discovery vary. Heraclitus, taking his figure from the sea, says: "One thing is wisdom, to understand how all things are steered through all things." Bacon puts it bluntly: "Knowledge is power." And our own Emerson, with a prophet's voice, exclaims: "Every jet of chaos which threatens to exterminate you is convertible by intellect into wholesome force. Fate is unpenetrated causes. The water drowns ship and sailor like a grain of dust. But learn to swim, trim your bark, and the wave which drowned it will be cloven by it and carry it like its own foam, a plume and a power. The cold is inconsiderate of persons, tingles your blood, freezes a man like a dew-drop. But learn to skate, and the ice will give you a graceful, sweet, and poetic motion. The cold will brace your limbs and brain to genius, and make you foremost men of time. Cold and sea will train an imperial Saxon race, which nature can not bear to lose, and after cooping it up in yonder England for a thousand years, gives a hundred Englands, a hundred Mexicos. All the bloods it shall absorb and domineer: and more than Mexicos, the secrets of water and steam, the spasms of electricity, the ductility of metals, the chariot of the air, the ruddered balloon are awaiting you."

That is all very familiar, continually familiar. It is proclaimed as a discovery to men who are strangers to it.

Schools exist, I suppose, because the mind has been discovered. Their obvious purpose is to keep us acquainted with the mind and to promote the intelligent penetration of things. This purpose is often obscured, and there is little doubt that the word "school" itself has facilitated the obscuration. It is a foreign word, which is one disadvantage; and it is a metaphor, which is a second disadvantage. Long ago a Greek observed that it is in leisure moments, when men are free from the stress of affairs and have time to think, that the mind is discovered. The observation caught the fancy. "To enjoy leisure" came to mean "to go to school." It was a happy conceit, we may say, and indicated much nobility in its author, since he could think of leisure as time which intelligence may claim. But the serpent is always in the garden. The perilous suggestion lies coiled in the metaphor—"to go to school is to enjoy leisure."

You can write the history of education, its reforms, its reactions, its revolutions, and its progress, in terms of that transfer of emphasis. Our thinking on scholastic matters has been controlled too much by a metaphor. The coupling of intelligence and leisure, although we may recognize it as a happy conceit in the man who made it first, gives a poor pair of categories in terms of which to discuss the business of the mind. It renders our propositions ambiguous and controversial, rather than simply true or false. It arouses an initial suspicion regarding what lies back of our programs. Our vision is not single with one eye on culture, refinement, manners, and a rich familiarity with nice things, and the other eye on intelligence, discipline, control, and creative curiosity. If, for instance, I express my conviction that education should be liberal, there will be those who approve and there will be those who dissent, while I shall probably be found working, not with those who approve, but with those who dissent, incurring thus the enmity of my friends and the friendship of my enemies. If I affirm that it is the great business of man to live his life to the full, but to live it to the full with intelligence, I shall, doubtless, win applause even if I am credited with stating the obvious impressively. But if I go on to propose to teach young men how to till the soil successfully and young women how to cook and sew admirably, there will be many who will ask first, not is it worth while in the interest of intelligent living, but is it education? Do you intend to give them the bachelor's degree? I may reply that degrees were not in mind, but I shall be warned to be very careful.

Naturally, when I say these things, I do not wish to be misunderstood in regard to the intent with which I say them. I am not proposing to discuss educational programs or to take sides in the controversies besetting them. I am proposing something different, namely, the recognition of an emphasis. If it is true that the discovery of the mind is our reason for being here, for taking up again the complicated work of an institution like this, and also the reason why educational programs are things of importance for us; then I am insisting that that discovery should be the source of our programs and the criterion by which they should be judged. No tradition, however sanctified by a beautiful and suggestive metaphor, can be sacred to us if in any way it weakens our important task. Are we making intelligence prevail? Are we invading with the spirit of inquiry every department of life? Are we letting no chance slip to bring under the control of reason the least as well as the greatest undertakings of men? Of such a type are the questions which those who believe that the mind has been discovered will ask first; and they will insist that their labors be judged by the standards such questions suggest and by no others.

There appeared recently in one of our daily papers an editorial entitled "New ideas of a university." It sees in the rapid expansion of our universities, as shown in the increasing number of courses undertaken and of new degrees offered, a response to a genuine demand on the part of large numbers of our people. It believes that this expansion is "bringing light into dark places," but that it is also "ousting older and more deeply thought-out ideas of education." How "the older idea of a university" is consequently affected may be seen by considering the diminishing proportion of the degree of bachelor of arts among all degrees now conferred. It finds that "the strength of the courses in which first degrees are granted in law, medicine, engineering, agriculture, and household science is a sign that the future typical university of America is not likely to bear much resemblance to Oxford and Cambridge." It affirms that what many people want is "a college where the buildings exemplify the latest advance in sanitation, and the laboratories are within six months of the latest discovery in applied science." It declares that "it is only in a new country that dietetics, the fine arts, the art industries, music and physical training, can be made to lie in the lap of one university"; and it finds "consolation" in the "belief that the students who follow these new courses will go into those subjects anyway, and that it is better for the community that they should be half educated in them than wholly ignorant." It closes with this warning: "If universities and men who should know better allow themselves to reckon elementary and cursory training in the application of scientific or artistic principles on the same level of honor with exhaustive and exact knowledge, they are doing wrong to the country. It may be that for a time we may have to see through a glass darkly; but if they declare that the imperfect vision is just as good as the perfect they are sapping standards. In education the idea of the best is the touchstone of all sound judgment."

This editorial is typical of many recent utterances on education. It reflects a current searching of the heart and a genuine questioning of methods and results. Its statements of fact may remain unchallenged, but what of its emphasis? If the future typical university of America is not likely to bear much resemblance to Oxford and Cambridge, is that, considered in the light of history and of present needs, a misfortune or a blessing? Is it the end of an argument or the beginning of one? Why, I ask, if it is better for the community that certain of our people should be half educated in certain subjects than wholly ignorant, why should that fact be a consolation for attempting to educate them? Why is it not a command and an obligation? Does the expansion of our universities mean that we are in grave danger of wronging the country by allowing ourselves to reckon elementary and cursory training in the application of scientific or artistic principles on the same level of honor with exhaustive and exact knowledge; that we are seeing through a glass darkly; that we are sapping standards? Or does that expansion mean that we are raising standards in every walk of life we touch, seeing more clearly, and widening the sweep of exhaustive and exact knowledge?

If the mind has been discovered it is time that people stopped looking to the past for standards and to the present for consolation. They should look to the past for experience, for guidance, for instruction, not that they may restore the past, be like it, ape its achievements or its culture, but that they may entertain their own visions with a chastened enthusiasm and press on to make them real. No one who has discovered the mind can take his standards from an alien time. More than the past ever held awaits him.

It is possible, therefore, to see in an increasing number of intelligent farmers something else than a decreasing number of promising philologists. Or, to put the matter in general terms, it is possible to see in the expansion of our universities something else than a menace to culture. In strictness of speech,—or, one might say, metaphysically,—there can be no new idea of a university which is not a wrong idea. For there is something Platonic and eternal about that idea, a changeless essence which may shine through many changing things. The only sense in which it can be called new is the sense in which we indicate that some one has seen it for the first time in his own experience. There may be new courses, new methods, and new degrees, and these may displace older and long established institutions, but there can be no new university. The accidents are old or new, the substance, never; for the idea of the university is the idea of the organized discovery of the mind.

The university is, therefore, not simply a place where a number of people are engaged in teaching and being taught a number of subjects of greater or less importance. It is much more than a collection of different schools brought together under one administration for purposes of economy or size. It is much more than a haphazard arrangement of different courses leading to different degrees and framed to meet demands of the moment, or to illustrate passing fashions, or to compete with rivals. To see no more is to see with myopic vision. To be sensible of no more is to be insensible to opportunity. The university is always at the beginning of a greater career when it finds a region which intelligence can invade and master, for that means progress in organizing the mind's discovery. It looks with a jealous eye on every educational enterprise and every attempt to advance learning which seek an independent existence.

A generation ago there was not a university in the land that paid any significant attention to the art of teaching as a subject worthy of special inquiry and of a special technic. There were training classes for teachers connected with local high schools and normal schools scattered here and there. But there is a vast difference between setting up a normal school, however excellent, by itself or in connection with the schools it serves, and setting up such a school in a university. In the one case you leave it isolated and disconnected, in the other you bind up its destinies with the career of productive scholarship. There is a vast difference, and the same sort of difference, between setting up a law school even in the heart of a great city, under the shadow of courts of law and in sound of the strife of men, and setting it up in a university. In the one case you link it with its necessities merely, the contingencies it has to meet. In the other you link it with progressive ideas in economics, politics, sociology, ethics, and the scientific investigation of human institutions. And you quicken the life of the university, too, by demanding that it respond to questions which must be settled now. There is a vast difference, as has been abundantly demonstrated, between setting up a medical school in a hospital and setting it up, hospital and all, in a university. There is a vast difference between setting up a college of liberal study in some beautiful country place where cloister and landscape, friendship and study, invoke *alma mater,* the nestling divinity whose charm makes "old" the dearest of adjectives, and setting up such a college in a university, where the many things in which it is possible to substitute knowledge for ignorance, intelligence for stupidity, reason for irrationality, find a place and demand that culture be more than an ornament, that it be rather a power to quicken, beautify, and ennoble the things men have to do. He who has seen these differences steadily and seen them in the light of the mind's discovery will not think of the university as a place from which a glory is passing away.

These things are said here deliberately and unblushingly for purposes of enthusiasm, to enhance the belief that the university is in idea and shall be increasingly in practice, the most important of human institutions. It sets faith in the controlling power of the mind in contrast with faith in any other power. It insists that a technic of curiosity, criticism, and control is superior to every other kind of technic, because it is applicable to every undertaking. It demands, since there is always an intelligent and rational way of doing what needs doing, that that way be found and followed, not only in mathematics and philosophy, in literature and science, in industry and the arts, but also in public life, in business, in politics, in society, in morals, and in religion. The proposition that we must think one way in the cloister, but must live and behave a different way in the market, is to it intolerable. The notion that we are the products of our ancestry, it supplements with the notion that we are the ancestors of posterity, making us thus indebted to the past, but obliged to the future. It aims to be the place to which men can look for judgments which are disinterested and therefore just. It is content only as it sees ignorance, prejudice, passion, partizanship, superstition, and privilege progressively giving place to the life of reason. If the prospect tends to make enthusiasm spontaneous, that which has been acomplished may make it sane. For the discovery of the mind is annually turning more and more of the world's wealth into lines of beneficient research; it is spreading education and enlightenment; it is making clear that only in its interest dare human life be held cheap; it is adding a deepening sense of the responsibility for vice to the personal obligation to be virtuous; it is subduing enemies as the armies and navies of the world have never subdued them; it is making daily clearer the truth that the rational conquest of the whole of nature means the happiness of men. Yes: these things have been said for purposes of enthusiasm, to see in the expansion of the university a prospect of goods to be won and not a prospect of goods to be lost; and to set faith in the mind squarely in opposition to every philosophy of life which disparages intelligence and feeds our inherited romantic fascination for the mysterious, the obscure, and the vague.

History may be written in many different ways and our philosophies of life are individually characterized by the type of history we prefer. The rise and fall of states, the conflicts between nations, the political upheavals of the peoples of the earth, may possess the imagination, so that history becomes political and military. We then count the decisive battles of the world, and scan the types of political organization, seeing in man a political animal with a political destiny, one hand grasping the sword and in the other withdrawn behind the shelter of steel a scroll half unrolled on which is written the law and constitution of a state. Or the character of coast lines, the drift of currents and prevailing winds, the number and courses of rivers, the productivity of soils, the presence of mineral stores in the earth, the varieties of climate—such may be the things on which we seize, and then we shall see civilization under the control of economic needs and economic laws, and find the gold of Arabia more significant than the Battle of Marathon. Or we may see in the political and economic animal more of the noun than of the adjective. An animal he is and like all animals a product of variation, struggle, selection, and heredity, one species in a vast evolution of life, subject to one cosmic law which he illustrates in every adjective by which he is described: biped, because the variation into hands outran the two additional feet of his ancestors; social and political, because a variation in the direction of interdependent living turned out to be advantageous; and rational, because the development of his nervous system holds his responses to stimuli in check so that when he does act, he acts as a creature who has had experience and profited by it. His future will illustrate the same law as his past and continue his career as an evolution. We may give to this conception a romantic color, veiling providence in our terminology or deifying evolution into a creative energy more profoundly real than any of its manifestations and more satisfying to the spirit of man than any of its accomplishments. These things we may do, and, reading history in the terms they set, find profit in the reading. But we may also read history, in terms of the discovery of the mind. We may see man rising from the ground, startled by the first dim intimation that the things and forces about him are convertible and controllable. Curiosity excites him, but he is subdued by an untrained imagination. The things that frighten him, he tries to frighten in return. The things that bless him, he blesses. He would scare the earth's shadow from the moon and sacrifice his dearest to a propitious sky. It avails not. But the little things teach him and discipline his imagination. He has kicked the stone that bruised him only to be bruised again. So he converts the stone into a weapon and begins the subjugation of the world, singing a song of triumph by the way. Such is his history in epitome—a blunder, a conversion, a conquest, and a song. That sequence he will repeat in greater things. He will repeat it yet and rejoice where he now despairs, converting the chaos of his social, political, industrial, and emotional life into wholesome force. He will sing again. But the discovery of the mind comes first, and then, the song.

FREDERICK J. E. WOODBRIDGE

THE STUDY OF LITERATURE

WHY so much study of literature? I use the word in its well understood sense of *belles lettres*. Let it be taken to mean poetry, fiction, drama, criticism, or any other species of writing that aims not so much to inform or convince as to stir the soul by an appeal to the feelings and the imagination through the sense of form. The definition is admittedly vague and unsatisfactory, but it will do for the present purpose. Of course I do not forget that in the hands of a master history, science, philosophy, even theology may still become literature. So too a book that wears the mask of literature may sometimes turn out on closer acquaintance to have but little of the elusive merit which that word usually connotes. But no matter now about fine distinctions, since I am to use a familiar word in a familiar sense.

To a bookish man for whom reading is, say, one-half of life it seems a little odd to be considering the question, Why do we study literature? Why do we love our friends or eat appetizing food? One might say that we study literature in order to procure what Wordsworth calls the joy of elevated thoughts; to feel the thrill of satisfaction that comes from intercourse with the finest spirits that have lived; to enter into the fulness of our human heritage and know what it means to be an heir of all the ages. In the presence of such benefits who cares very much whether his parsnips are buttered or not?

Does any reader perchance think these reasons too idealistic? If so I have but little hope of converting him. The love of the great poets, like the love of woman, cometh not by taking thought or hearing argument. It is a gift of nature, a phase of personal endowment and idiosyncrasy. One man has it, or has the capacity for it, another has not. He who is sensitive to verbal artistry will need no argument to convince him that the study of the great writers is profitable; but where the faculty does not exist, or has been allowed to atrophy, argument is futile—like praise of color in the ears of a blind man. If the susceptibility is there it can be developed, guided, chastened; but it can not be created. Unless one has learned in childhood to enjoy the reading of imaginative literature one is not very likely to acquire the passion by going to school in the years of adolescence. There are minds for which the great poets must remain a sealed book; minds that are color-blind to all the potencies and niceties of style. Needless to say that for them the study of letters must be largely a bore and a futility.

Freely granting, then, that the study of literature is not every one's affair, I do not feel concerned to defend it against attack or indifference. If anyone has tried it and found it wanting let him go in peace. Like music or architecture or any other pursuit that involves the esthetic faculties, literature demands of its votary some aptitude, a certain eagerness and appetency, without which it will never yield up its higher satisfactions. The study ought always to be voluntary, to present itself as an opportunity rather than as an obligation, to be as free as possible from the atmosphere of compulsory routine. Imagine being required to look at a fine picture or listen to seductive music. To go at a noble poem or a great play with reluctant or apathetic mind, because a professor has "assigned" it for reading, or because it is included in some scheme of required work, is a sort of literary lese-majesty. If we were not so sadly familiar with it the idea would fill us with horror.

The best that can be said for this form of academic constraint is that after all it does no great harm—does not injure society—and that it may lead now and then to one of those glad surprises that are the appointed reward of the eager student of letters. Remember Saul, the son of Kish, that choice young man who went forth to search for the missing asses and found a kingdom: do we not read that his father sent him out? It will sometimes happen, indeed it often happens, that a student who makes his first acquaintance with an author under the constraint of routine will little by little find his eyes opening on a precious *κτῆμα ἐς ἀεί*.

Now it is in the discovery of such "possessions for ever"—books which meet a personal need, enlarge the soul and liberalize the mind, books which one can turn to as permanent sources of edification—that we are to look for the supreme benefit of literary study. I repeat that its rewards are not for everyone; but for the fortunate its rewards are great indeed. The goal to be kept in view is not to acquire the jargon of literary criticism and be able to discourse learnedly of isms and movements and tendencies; not to master a system of labels and pigeon-holes and learn to generalize speciously about books that one has not read; not to fortify oneself in pre-existing prejudices—but to make friends with the great writers, so as to feel really at home in their society. The greatest profit comes, in the long run, from an intimate acquaintance with a chosen few of the aristocrats of letters, rather than from heaping up knowledge about a multitude of minor lights. It is better to know Goethe well than to have memorized Goedeke's *Grundriss*.

But I see that this last saying requires some qualification, lest I be thought to have a low opinion of the study of literary history. Let me not be so understood. Literary history has a high value of its own; only it is a value of the second order as compared with the intensive study of the master spirits. Indeed it is necessary to a full understanding of the master spirits, who are always, as we are so often told, children of their own time. There is no need for me to urge the importance of the historical point of view, since all the world has long since recognized it. We live under the sign of history. The most interesting question that we can ask about almost anything imaginable is: *Wie ist es eigentlich geworden?* The formula of the race, the epoch, and the milieu has done good service and no doubt will long continue to do it. It explains much —so much that we are in some danger of forgetting its limitations. For it does not explain everything. It stops at the ultimate riddle of personality, of power, of genius. Yet this is precisely the most interesting thing in all the writers that are best worth studying. It is well to know all the conditions that went to the shaping of Shakspere's mind and art. Still, when we have got as far as we can go on that line we have to remember that the most of the conditions existed for some thousands of other Englishmen who somehow never created a *Lear* or a *Hamlet*. It is good to know the conditions; better to know *Lear* and *Hamlet*.

The specific value of literary history, to my way of thinking, is that it serves, better than any other kind of historical study, to develop and train the historical imagination. This is surely a very important matter in any theory of education. I can think of no better sign of the educated mind than to have sound and well grounded ideas of the men who lived long ago. The illiterate man knows nothing of the past prior to the days of his grandfather; back of that all is mist and myth and vague tradition. Out of this ignorance grow all manner of illusions and superstitions. On the one hand it begets romantic dreamers who make gods of their ancestors, idealize the brave days of old beyond all desert, cling tenaciously to outworn and pernicious customs, and imagine that the world is going wrong unless the hands of the clock can somehow be set back. On the other hand it begets philistines who suppose that wisdom began the day before yesterday, wax eloquent over the wonderful progress of the age in small material ways, and perhaps bestow pharisaical pity on the unfortunate folk who lived before the era of the telephone and the electric car.

The best result of any scheme of education is the power, coupled of course with the will, to serve society by useful work. Next to that I should put the trained sense of solidarity with those who have gone before. This is a distinctive trait of human nature at its very best. Whatever we can do to strengthen and ennoble it and ground it on a firm foundation of real knowledge is well done. Now to this good end I know of nothing better than the study of literary history; that is, the study of the literature of the past with due regard to its historical setting. (The mere conning of a textbook or of lecture-notes *about* the literature is like trying to study botany without seeing any plants.) It is in their literary productions that our forbears reveal themselves to us most fully. There we come to know them intimately. We find out not only what they did and suffered, but what they thought and felt. We see by what passions they were swayed and how they envisaged the world.

Now all this is full of instruction for him that would learn and has lessons of many a kind. Such studies may not boil the pot, but they humanize the mind, discipline the judgment and give us a juster idea of our noble selves. Matthew Arnold was wont to touch on the danger of reading but one book, even were it the Bible. But is there not a similar if perhaps lesser peril in reading only books of our own epoch? Just because that epoch *is* our own and is so very interesting; because it is all about us, so to speak, shaping our lives from day to day, providing us (if we are lucky) with work and with recreation, and presenting a multitude of problems compared with which the problems of Marcus Aurelius and Martin Luther seem very remote and fantasmal—just because our own epoch touches us so closely on every hand, it obscures and distorts our vision. The mountain-climber, toiling up slowly, encounters obstacles that seem for the moment terrific. He reaches the top and looks back. And then he sees that the awful declivity was but a gentle slope, the dreadful jungle only a paltry thicket, and the huge morass nothing but a little swale. Perhaps he sees the whole mountain-side peppered with the species of tree which he had thought a unique discovery of his own. We need this summit view of human affairs; and the best way to get it is by studying the past in its literature.

Up to this point I have written of the ideals and rewards of literary study, and I suspect that I shall be accused of making the thing too bright and good for the daily pabulum of plodding human nature. Le me now say something of its more humdrum aspects, of the difficulties that beset the way, and of its professional bearing.

Anyone who has followed me thus far will not have failed to notice that I have dealt with literature as if it always presented itself in the English of today; as if the good kernel could be got at without cracking a hard shuck or gnawing through a more or less bitter rind. But it is not so. Alas for that sad day's work on the plain of Shinar, when the children of men said, Go to, let us build a tower! If we except the literature of modern English there is always a language to be learned before one can even begin to gather the treasures of which I have spoken. And the learning of a language up to the point of literary appreciation is not the affair of a summer holiday. Translations—do you say? Well, yes, if it must be. Better a rude plaster copy of the Parthenon than no inkling of the Parthenon whatever! And true it is that the student of literature must unavoidably rely, to a great extent, on copies that are more or less rude. The world has come to a point where no one can any longer know all the languages in which great books have been written. There must be a selection of some more or less limited field in which we may hope to walk on our own feet in the pride and joy of knowledge; and outside that chosen field we must e'en be content with such crutches as come to hand. Where books of information are concerned—all that come under the head of science in its broadest sense—there can be no objection to reliance on translations. Indeed such reliance is a wise economy. But the moment we enter the realm of "literature" there is always something lost even in the best of translations. The eager and ambitious student will therefore wish to know the language of his poet. There is no other way. To renounce such knowledge on the ground that one has not the time or the patience is to lower one's flag and be content with an inferior status.

A generation ago it was a common charge against teachers, more especially of Greek and Latin, that they treated the classics of literature as so many cadavers for grammatical dissection. Perhaps that sin is still committed here and there, but speaking broadly and having regard to the better American colleges and universities, I think there is now but little ground for complaint on that particular score. At Columbia I am sure there is little ground. Perhaps there is danger that the reaction may carry us too far. I sometimes fear that in our very eagerness to avoid the old folly and vitalize the study of literature we may run some risk of neglecting the really weighty matters of linguistic scholarship. It would be a pity to do that. We must never promote the illusion that a great author, especially a great poet, can be known, except in an inferior sort of way, without knowing his language. For certain purposes it is well to remember that the letter killeth, while the spirit giveth life; but that good maxim ought never to be twisted into an excuse for not knowing what the letter really means. The "life" which the spirit seems to give will sometimes turn out to be a slap-dash generalization with nothing in it. There is no need of any antagonism between literary and linguistic study. The one plays into the hands of the other, each has its own satisfactions. The two go together like the parts of a hinge.

The hardest of problems for the student of letters is the management of his reading. Excess of system is deadening, an utter lack of system means waste of effort and hence—how dreadful the word sounds in these days—inefficiency. When a lady asked Ruskin to draw up a course of reading for her daughter he replied: Turn her into a good library and let her browse. That is really the way to become a wise reader and to experience the seasoned bookman's joys. Imagine any well-read man of letters—a "full" man, to use Bacon's word—doing his reading according to a scheme, especially a scheme constructed by some one else. To browse is the way of wisdom. Of course it will not be forgotten that a certain amount of rumination goes naturally with the process. The trouble with the student of today is that he hasn't time to think. There are so many books to be read, so many references to be looked up, withal so many distractions. And then there is that essay or report, which must be ready at a certain time. Under such conditions reading is apt to become a scramble. I occasionally hear able and conscientious students boast of the amount of reading they have done in a stated time, very much as one might boast of the ground covered in a cross-country run. Such speeding may sometimes serve good ends and be useful as a test of staying power, but we should at least remember that reading done in that way is hardly to be called an intellectual employment. It is very much on a par with the joy-ride which misses the joy.

Probably my praise of browsing and my deprecation of the speeding habit will be received in some quarters with a mild if not a wild surprise. It sounds so unprofessional, so out of tune with current conceptions of the strenuous life, as if people—men in particular—had nothing to do in this world but to go in for culture. What becomes, some one may say, of the categorical imperative to produce? How can one afford to browse when there are academic honors to be won, a doctor's dissertation to be written? Well, I hold no brief for a lazy life in the "still air of delightful studies" or anywhere else. Let us recall that browsing has a purpose—to find nourishment—and that thinking is hard work. Fortunately, however, it is at the same time a source of pleasure, and one who is so constituted as to find no pleasure in it has probably no call to literary scholarship. Mechanical industry in the performance of an appointed task may secure the professor's commendation (he does not always know), but that is a poor surrogate for the satisfaction that comes of discovering one's own problems and working them out in one's own way. But how shall one discover good things to do, and be sure that they have not been done already, unless one has first read somewhat widely and acquired what the Germans call a *persönliches Verhältnis* to some author or group of authors? And thus we are brought back to the utility of browsing.

There are those who like to indulge in cynical animadversions on the literary studies that in our day are put forth so abundantly in Germany and the United States as doctoral dissertations. And truly some of them are a little trying in their unreadableness and lack of horizon. Where this is not due to mere dulness it is apt to be due to insufficient browsing. Taken by and large, however, these products of the academic mill—I have had occasion to read a pretty large number of them—are now rather creditable. A hundred of them chosen at random will average up very well with a hundred specimens of any genre that swells the book-market. Why should the austere reviewers who delight to fall foul of the doctoral dissertation as such expect more of the tyro in research than of the hardened sinners in fiction and drama?

But while I see no occasion to worry over the jejuneness of an occasional dissertation—there being so much printed matter that is jejune—I am of the opinion that there is room for much improvement in the conditions which surround what may be called the professional study of letters in these United States. Judging by all analogies one would expect that the work of the universities would aim at the training of authors—persons who at least dream of producing literature for the general public. But it is not so. We have taken over the German degree of Ph.D. and the German method of securing it. In Germany, however, the degree signifies, if taken in the field of letters, that its holder has won his spurs as a contributor to *Literaturwissenschaft*—a branch of science created by and for specialists and quite alien, for the most part, to the literary interests of the general public. To some extent we use the degree in the same way; but owing to its great value as an asset in the teaching profession it tends to become a certificate of fitness to teach in a college or a university. So it is eagerly sought by those who expect to teach and nothing else; who have no thought of an author's career and no strong bent for productive scholarship.

Thus we have a condition of affairs in which, among the three professions of teaching, letters and scholarship, only the last is well served. The prospective academic teacher is not trained specially to that end and often finds, when he begins to teach, that the work he has done for his hard-earned doctor's degree has no bearing on his main vocation. On the other hand, the would-be author finds that he must become a specialist. For two or three years at any rate he is compelled to burrow in the ground instead of seeking the heights, and to exemplify and cultivate qualities which, admirable in their sphere, are not exactly the qualities which mark the man of letters at his best.

Just how we Americans should set about remedying this state of affairs is not yet fully apparent, and I have left myself no room for a discussion of the question. In any group of literary scholars one will hear various suggestions made. At any rate it is clear that the Germans can not help us. So far as concerns training for the profession of letters, they are no whit better off than we—worse if anything. Like our own, their authors come up by dint of native talent aided by a general education, or else they evolve out of scholars, teachers, journalists, doctors, lawyers, etc. In France, where journalism is rather more literary in quality than elsewhere, a very large proportion of the most prominent men of letters are or have been journalists. In England the same appears to be true in a somewhat less degree. This being so, it is perhaps reasonable to hope that a few years of experience with our new School of Journalism at Columbia may throw a good deal of light on the general problem of what is best in the way of professional preparation for the literary career.

CALVIN THOMAS

HOSPITAL CONSTRUCTION IN NEW YORK CITY AND THE DEVELOPMENT OF A UNIVERSITY HOSPITAL

THE present paper on hospital construction is suggested by three principal considerations: First, by the present interest of Columbia University in the rebuilding of the Presbyterian Hospital which has become by an alliance between the two corporations the University hospital of Columbia's medical school, the College of Physicians and Surgeons; secondly, by the desire to develop the general plans for hospital construction which were suggested in a pamphlet on the ideal development of hospital and medical school, privately printed last spring, and finally, by the wish to formulate a solution for New York of the theoretical conditions of hospital construction which are accepted by the authoritative writers on this subject.

It is thought not to be desirable to neglect in this paper a consideration of the problems involved in a rebuilding of the Presbyterian Hospital, and the plans developed below are those of a large general hospital to include departments of medicine, of surgery and of the medical specialties, to include a department of pathology with special applications to every clinical department, to include a large outpatient dispensary service, and finally to provide adequate facilities for teaching and for medical research.

Such a complete hospital combination has never up to the present time been built. The development of most university schools which have clinical plants in medical specialties has been on the basis of adding a separate hospital unit for each specialty represented. The most complete of such aggregations of clinics are to be found in Europe and represent especially the German ideal. Such special clinics are essential for advanced or postgraduate teaching in any specialty and for any teaching in such specialties as obstetrics, orthopedic surgery, and psychiatry. In these specialties such individualized work as the care of new born infants or the fitting and making of mechanical apparatus forms a large part, and the addition of sufficient space to equip such clinics would add very materially to the size of a general hospital. There is no theoretical reason why such cases should not be cared for in the same group of buildings with other patients. They are omitted in the following plans solely because of the practical reason that they demand so much space, but an attempt has been made to include enough of all other important specialties of medicine to give sufficient instruction to provide a broad foundation in them to all undergraduates and to afford the heads of department all reasonable facility for study and research. Another omission will also be noted: no room has been planned for a nurses' home. It is believed that the nursing staff is better cared for in an isolated building. Quarters for the nurses could be added to any block hospital plan by the addition of a whole story devoted to that purpose if such a solution of this important question be thought desirable.

In developing the hospital plan suggested last spring in more minuteness, reference has been made to the pamphlet on this general subject already referred to and also free use has been made of the report of a special committee of members of the Medical Faculty in which a detailed designation of hospital space was suggested for the departments of medicine, surgery, and pathology. The hospital here planned is not to be considered as a proposal for the new Presbyterian Hospital, in fact it will not fit on the site already selected for that new building, but if the general considerations presented below are valid suggestions for the construction of hospitals in New York City, neither the Presbyterian Hospital nor any other similar institution can afford to neglect a study of them or can adopt any plan much at variance with this general ground layout. The street plan of New York limits the possibilities of hospital design very materially if the hygienic rules of hospital construction are to be fulfilled. Of all the hospitals which have been built in New York none satisfies all these hygienic rules and some of these hospitals break most of them.

It is unfortunate that hospital construction cannot be considered chronologically in the nature of a progressive study, for some of the older hospital buildings are far better examples of healthy hospitals, to use Sir Douglas Galton's phrase, than are other institutions of more recent date. Some hospitals have built two series of buildings on an east and west axis on the New York City blocks of two hundred feet north and south width, which has resulted in small dark courts between the buildings. Others have constructed wards for the accommodation of a dozen or more patients into which the sun never shines. Some have built their wards with ample cubic space, but of such a shape that the number of beds planned for cannot be accommodated and at the same time permit the ordinary ward traffic necessary to care for the patients. Many have taken no means to prevent intercommunication between the ward units through stairways, elevators and corridors. These hospitals have often been planned more to secure centralization in the housekeeping and administrative services than to serve the hygienic requirements of the patients in the wards.

The hygienic rules which are so often broken are seemingly self-evident when expressed in straightforward terms and it seems superfluous to formulate them. The difficulty seems often to be not that the general proposition is not understood, but that the builders of hospitals have not appreciated when and how even the simplest sanitary laws are being broken. These principles for building healthy hospitals have been presented in the general works on hospital construction by Burdette and Galton in England, by Oswald Kuhn writing as an architect and by F. Ruppel writing on behalf of sanitary engineering in Germany. The two most recent presentations are offered from the medical point of view by Grober in Germany in his book on "Das deutsche Krankenhaus" and by Depage and others in French in a work entitled "La construction des hôpitaux."

The following principles are prescribed by all these writers for the essential element of the hospital, the ward unit: There must be free access of sunlight and air. There must be freedom from dust and smoke, from dirt and noise. There must be protection from the east and north winds. There must be a good cross ventilation by means of the windows. Galton lays much stress on raising the wards above the ground level, which opinion would logically be an argument against the conclusion of all the continental authorities that the single story pavilion forms the only possible solution of this problem. The ward unit meets these requirements only when rectangular in shape, with its long axis north and south, with windows, preferably one to each bed, on its east and west or long sides, with no obstruction built on its south end, but with all its accessory apartments for service, for communication and for teaching grouped about the northern extremity. The size of the rectangular ward is determined by the space required for two rows of beds arranged along the east and west walls with the heads towards these outer walls. Each bed requires a minimum square surface 8 ft. × 13½ ft.; the 8 ft. of ward length or wall space leaves 5 ft. between beds and gives room for a chair and a bed table for each patient; the 13½ ft. of ward width allows 1½ ft. between the head of the bed and the wall and 12 ft. between the beds as a central ward space for general ward tables, the necessary aisles for stretchers and service carts. The minimum width of such a ward is therefore 27 feet and its length in feet will be eight times the number of beds on each side; a ward of twenty beds will be eighty feet long, for example. The cubic space required per bed is variously estimated; Grober places it at thirty cubic meters. The most generally accepted height for large wards is fifteen feet, and taking this in computation with the length and breadth dimensions just given, it will be found that 1680 cubic feet will be allotted to each patient bed. This is nearly twice the allowance suggested by Grober, but even so high an authority as Grober seems to have neglected the fact that the number of patients represents only a part of the census of a hospital ward. A ward of twenty-four beds requires six nurses, at least one ward maid or orderly, and in addition there should be added four clinical clerks in a teaching hospital. This would add fifty per cent. to the ward census without taking account of the more or less frequent visits of the attending and resident medical staff. The dimensions given for a hospital ward seem none too large and far from any suspicion of extravagance of space when these conditions are considered.

Another and important point to be observed is the individual isolation of each ward unit from every other so far as the possibility of infection and disturbance in work is concerned. This hygienic decentralization is insisted on by all writers, and the continental authorities are unanimous that it can be secured in hospitals of over three hundred beds only by building on the pavilion plan. Grober advises even for a pavilion hospital that the continuity of the few connecting corridors be broken at stated intervals. An antagonism exists between the sanitary isolation required by the medical service and the service centralization demanded by the housekeeping and administration departments. In the plans developed in this paper it is believed that the necessary hygienic decentralization is secured without sacrificing the service centralization. This is done by planning for a ten story fire-proof building to be constructed on the modern American system of steel girder support, which has made possible the present day skyscraper. The pavilions are separated from those on the same level either entirely or are connected only by a single broken corridor along the north side of the site. The pavilions which are superposed in the same "barrack" are connected by a staircase and elevator shaft also on the north side of the block, which is "broken" by a vestibule on each story. In maintaining his thesis in favor of the multiple one story pavilion hospital as the only possible solution for building an institution to care for more than three hundred patients, Grober makes the definite claim that vertical communication is more expensive and more difficult than is a system of service on one horizontal level. He also seems to favor man power as against mechanical appliances, although he admits that their relative cost has never been determined. Whatever may be the fact in Germany, neither of these dictums can be accepted as true today for American conditions and, therefore, as arguments for the pavilion hospital. So far as New York City is concerned, the controlling factor which is all powerful will be the cost of land; this alone will compel the adoption of tall, many storied structures for metropolitan hospitals.

The plans of the hospital here suggested occupy a site two hundred by six hundred feet; this plot of ground is selected because it represents an average city block in New York. The street plan of New York is made up of streets two hundred feet apart, running northwest and southeast, intersected at right angles by avenues at varying intervals, running northeast and southwest. The distances between the avenues vary between nine hundred and sixty feet and

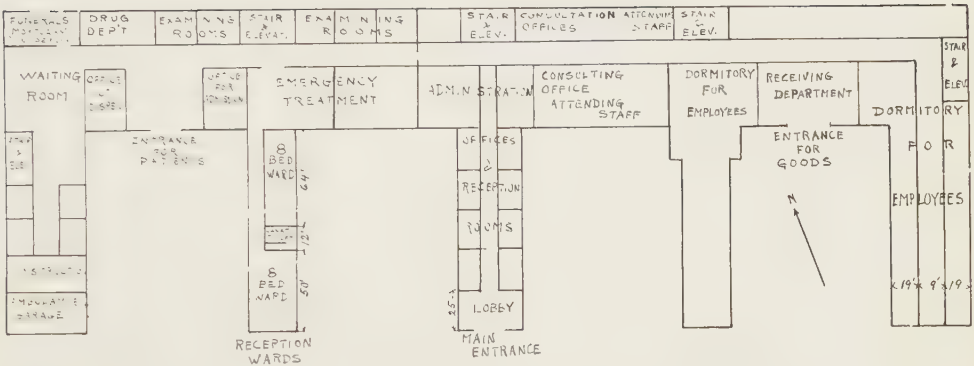


FIG 1 GROUND FLOOR

DISPENSARY

ADMINISTRATION AND RECEIVING DEPARTMENTS

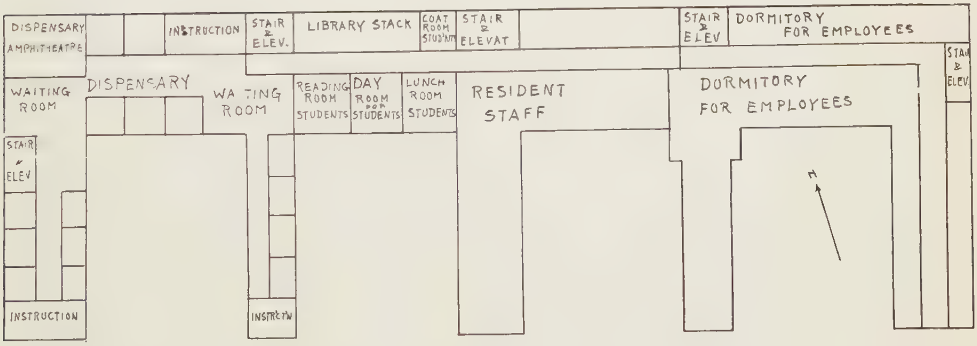


FIG 2 SECOND FLOOR

DISPENSARY AND LIVING QUARTERS FOR RESIDENT STAFF AND EMPLOYEES

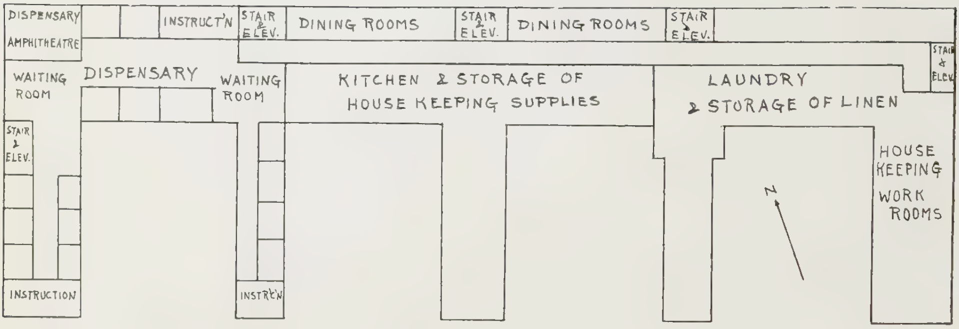


FIG 3

THIRD FLOOR

DISPENSARY

KITCHENS, LAUNDRY AND HOUSEHOLD DEPARTMENTS

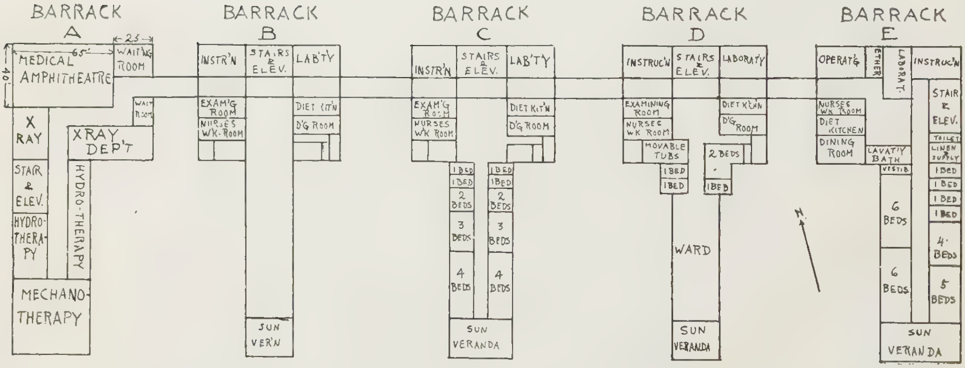


FIG 4

FOURTH FLOOR

SPECIAL THERAPEUTIC DEPARTMENTS, MEDICAL AMPHITHEATER AND WARDS four hundred feet or less. For such a hospital as is here contemplated no smaller plot of ground should be considered than an entire city block, which would ensure air and light on all four sides. Such a site in New York, unless it has a public park on one side or is near one of the river fronts, is limited to a free surrounding space of sixty to one hundred feet, which are the regular widths of the city streets. It is desirable, therefore, to build in a neighborhood where the surrounding buildings will not be excessively high. Of course such a condition cannot be guaranteed for all time, but the future can be guarded against to some extent by placing the wards in the upper stories. In the plan adopted, all the departments for administration, for housekeeping service, for dormitory uses are in the three lower stories of a ten story building, and the wards occupy the seven upper stories. The wards are superposed and arranged in pavilions, and each ward forms a complete unit hygienically isolated as already described. Such a site, with a long axis in a general east and west direction and with a north and south width limited to two hundred feet, is a necessity in New York. The limitations and difficulties arising from such a site have been emphasized by Doctor Goldwater in a series of thoughtful studies on this subject. Such a site fortunately allows of a long narrow building extending towards the south (actually southwest) to contain the ward units and of a north main building to contain the accessory ward rooms, the connecting corridors and the elevator and staircase shafts for intercommunication and service. The ward unit wings may be multiplied at fixed intervals from east and west, and the size of the hospital will be limited only by the length of the site and by the height of the building. Such a ward unit fulfils the theoretical requirements of a hygienic decentralization and secures as complete a service centralization as is possible in a building of its size. The adaptation of kitchen and laundry, of storage facilities and of dormitories, of the administration office, and of the outpatient dispensary to this floor plan, which is fixed by the unchangeable demands of the ward unit, is a question of detail planning of far less importance than that of the ward units and one which can be solved without serious difficulty or embarrassment. Such a plan meets all the requirements of a large healthy hospital and has been referred to in a previous paper as New

York's contribution to the solution of the problem of hospital construction. In my opinion the hospitals of New York are to be deemed successes or not from the viewpoint of sanitary science in proportion as they approach this general ground plan in their construction.

In the plans of the several floors the amount of space devoted to each department is indicated with approximate accuracy, but no attempt has been made to develop each department in minute detail except so far as the ward unit is concerned. The arrangements for each floor are as follows: The cellar contains the steam and electric plants for furnishing heat, light and power and for the storage of coal. The cellar plan may be excavated on larger lines than those of the stories above and light may be secured by ceiling openings in the several courts of the building. The first floor (Fig. 1) is given up to the admission department with an emergency and reception ward in close connection with the first floor of the dispensary. The ambulance garage and offices for administration and the consulting offices for the attending staff are also on this floor. The second floor (Fig. 2) has a part of the dispensary, day rooms for medical students and dormitory space and living rooms for the resident staff and employees. The third floor (Fig. 3) contains the upper part of the dispensary and the household departments, including the laundry, kitchen and dining rooms. The fourth floor (Fig. 4) is the lowest story devoted to permanent hospital residence. It and the stories above are made up of one barrack devoted to pathology and of four separated barrack buildings containing superposed ward unit pavilions which are joined by bridges whenever necessary. In addition to certain wards, the fourth floor contains in barrack A a medical amphitheater and apartments devoted to hydro-therapy, mechano-therapy and radiographic work, which are of convenient access both from the dispensary and from the wards. In figure 4 the pavilions in barracks B and D are outlined as different types of ward units thirty feet in width. The pavilion in barrack C is depicted as a small corridor hospital of the medical type (e. g. diseases of children), and that in barrack E is shown as a corridor hospital for an operative surgical division (e. g. diseases of the eye). The fifth to the tenth floors (Fig. 5), inclusive,

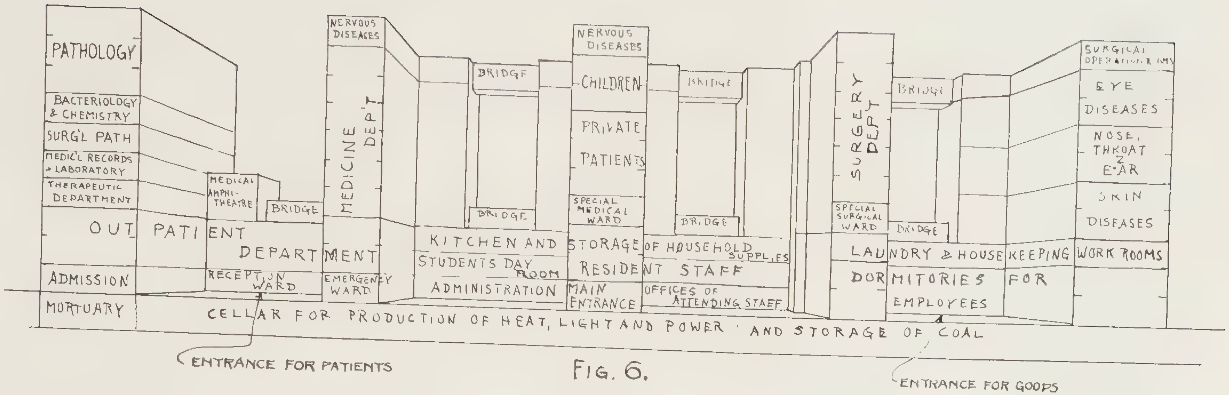


FIG. 6.

ELEVATION

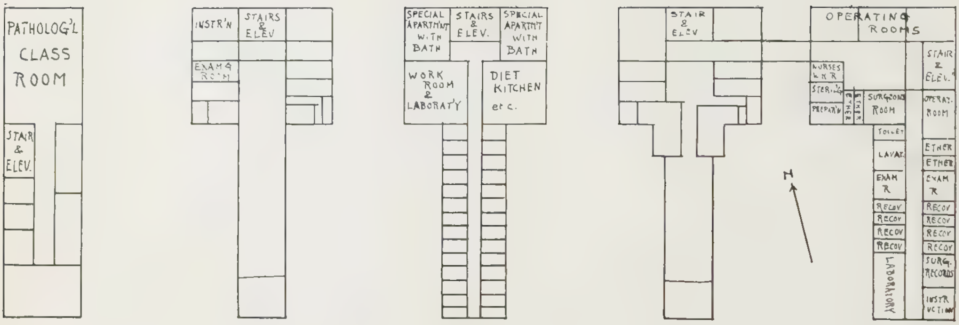


FIG. 5

PATHOLOGICAL DEPARTMENT

SURGICAL OPERATING ROOMS AND WARDS

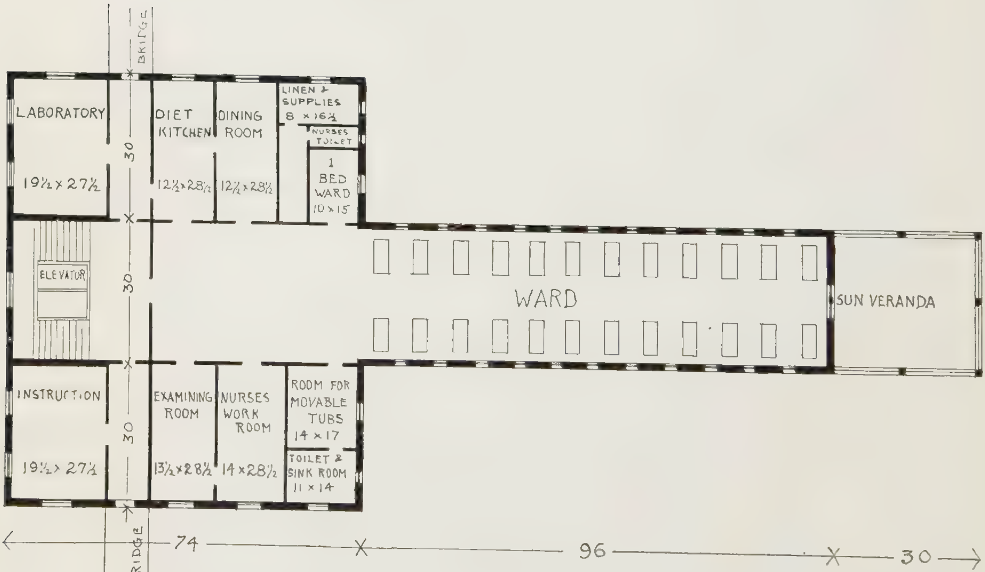


FIG 7

WARD UNIT OF TWENTY-FOUR BEDS AND ONE ISOLATION BED

PAVILION OF THIRTY FOOT WIDTH TYPE

are made up of four barracks in which the superposed pavilions are devoted to wards and one similar barrack building (barrack A) for the scientific specialties of pathology, with special floors devoted to surgical and to medical laboratories, including bacteriology and chemistry. The surgical operating rooms are on the top story (the tenth), of one barrack, and are shown in figure 5 (in barrack E). The pavilions in barracks B and D show the same detail as in figure 4, but the pavilion in barrack C is drawn to represent a ward unit devoted to the care of private patients.

In figure 6 an elevation shows the distribution of the departments viewing the hospital as a whole. The following points are worthy of emphasis. The medical department is grouped in one barrack building of seven superposed ward unit pavilions. The lower six can easily be administered as three service units of fifty beds each in accordance with the article on the organization of an American medical clinic by Professor Janeway printed in the June QUARTERLY. In addition there is an amphitheater with medical laboratory in the neighboring barrack on one side and a series of rooms for the special study of individual cases in the next barrack on the other side. The surgical department is grouped in one similar pavilion barrack with seven stories. One ward unit can be devoted to special surgery and the remaining six should be divided into three service units as planned for the medical division. The operating rooms and accessories are grouped on the top story of a neighboring barrack and can be reached by a connecting bridge; the laboratories for surgical pathology are located in the pathological institute. The department for nervous diseases is made up of two ward unit pavilions in adjacent barracks joined by a bridge. This will permit of one large ward in one unit and of a series of single rooms in the other unit. Each of the specialties of eye, skin, nose, throat and ear diseases and of diseases of children has assigned to it two superposed ward unit pavilions. There are three pavilions devoted to private patients which will accommodate about sixty-six patients. There is a single entrance for all patients, both inpatient and outpatient, whether they arrive on foot or by ambulance or other conveyance; a separate entrance for the reception of goods, and a main central entrance for private patients and the general public. The transportation of one patient from one pavilion barrack to another is facilitated by a continuous corridor along the whole series on the fourth floor and by connecting bridges and corridors on the topmost story, so that a patient may ascend when necessary in his own barrack and then proceed along the connecting corridor to the surgical operating room; or by descending similarly to the fourth floor a patient may reach the therapeutic plant for radiography or other similar study or treatment. In connection with every ward unit there is a sun-veranda which is situated at the south end of the ward and each veranda is about one thousand square feet in area. These balconies are an essential to all convalescent treatment and also for the care of some cases of acute disease. They are designed so that they cannot obstruct the access of light and air to the wards. The hospital will possess five flat roofs which will furnish five very valuable adjuncts for the treatment of patients.

The remaining series of plans represents in detail and on a larger scale the several types of ward unit which are demanded by the varying widths of the pavilions. Figure 7 shows the plan for a ward unit of the thirty foot width pavilion type in which there is a main ward of twenty-four beds with one isolating room and the necessary ward accessory rooms for linen storage, for lavatory, for diet kitchen and patients' dining-room; also a nurses' workroom and an examining room. This plan shows a connecting corridor running east and west, to the north of which there is a laboratory and a room for instruction and the shaft containing the stairs and elevators. In figure 8 a ward unit is shown of the thirty foot width type, in which there is a main ward of eighteen beds and five beds for separate treatment and in which there is no communication with the ward units on the same level. In figure 9 a ward unit of the forty foot width type is shown. The accessory rooms are the same as before, but the twenty-two beds are arranged in the form of a small corridor hospital. This corridor plan permits the grouping in smaller wards of cases of various types, an arrangement which is desirable for the patients of a service devoted to medical specialties. Small wards can be arranged economically only on the corridor plan and must lose the advantages of through cross ventilation and of an east and west daily exposure to the sunlight.

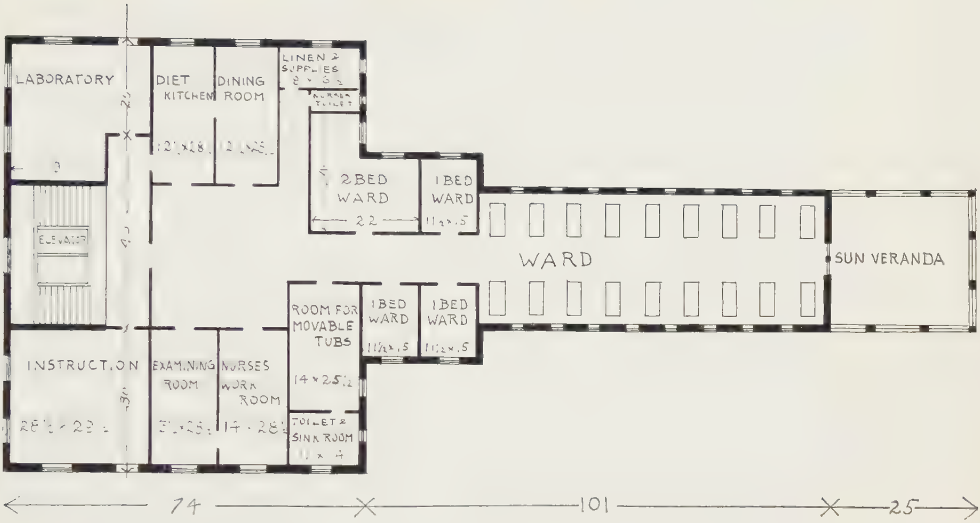


FIG. 8.

WARD UNIT OF EIGHTEEN BEDS AND FIVE ISOLATION BEDS
PAVILION OF THIRTY FOOT WIDTH TYPE

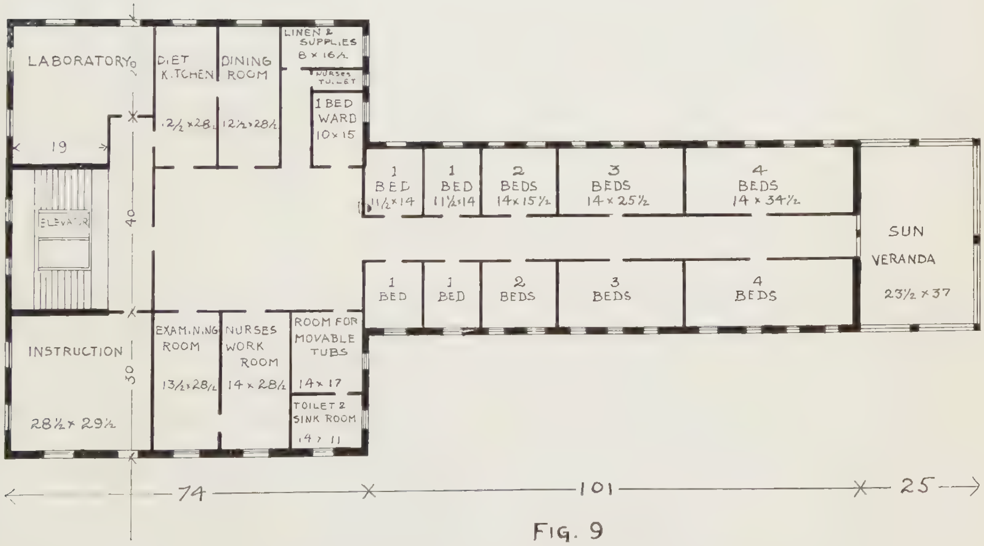


FIG. 9

WARD UNIT OF TWENTY-THREE BEDS IN SMALL WARDS FOR CHILDREN'S OR SIMILAR SERVICES
PAVILION OF FORTY FOOT WIDTH AND CORRIDOR TYPE

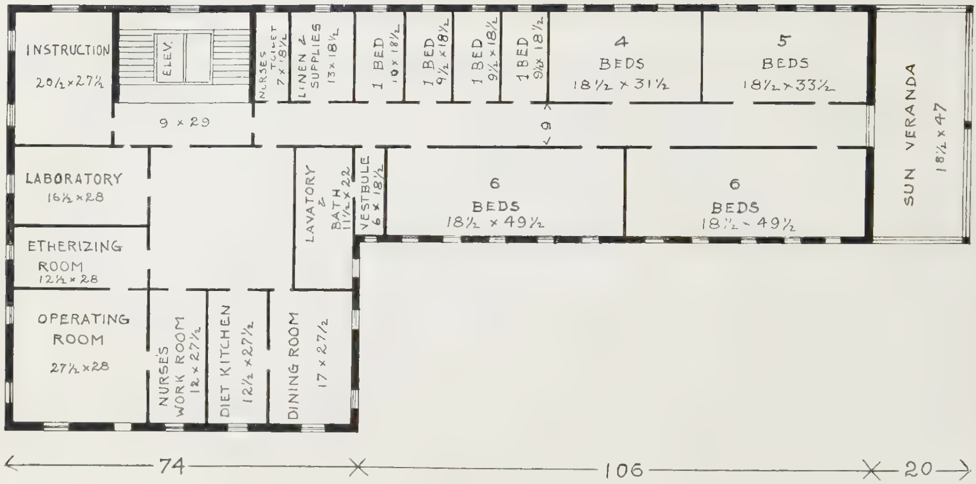


Fig 10

WARD UNIT OF TWENTY-FIVE BEDS IN SMALL WARDS WITH OPERATING ROOM PLANT FOR SERVICE DEVOTED TO DISEASES OF THE NOSE, THROAT AND EAR AND SIMILAR SERVICES
PAVILION OF FIFTY FOOT WIDTH AND CORRIDOR TYPE

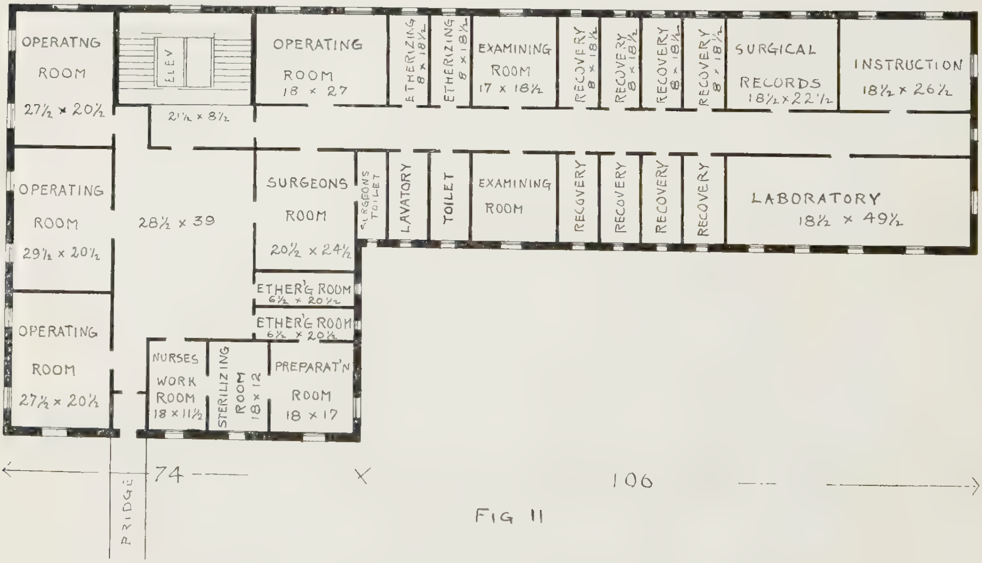


Fig 11

GENERAL SURGICAL OPERATING ROOMS AND ACCESSORY APARTMENTS
PAVILION OF FIFTY FOOT WIDTH TYPE

In figure 10, a ward unit of the fifty foot width type is planned for a medical specialty which is of an operative nature, such as diseases of the eye or those of the nose, throat and ear. The arrangement of the wards in these forty and fifty foot wide barracks is on the corridor system, which supplies small wards of one to six beds each. The accessory ward rooms are the same as before, with the addition of a small operating room plant, except that their arrangement on the plan is different.

The essential features of all these ward units are the isolation of the apartments devoted to the care of the sick from all direct communication with the stairs and with the elevator shafts and connecting corridors, and the securing at the same time of a close connection with the housekeeping departments. These requisites of a healthy hospital are attained for three distinct types of ward unit—distinct in detail, but really identical in their general conception. This consists of a long and comparatively narrow pavilion with a north and south axis, having the accessory rooms and the means of communication grouped about the north ends of the wards. Much work would remain to be done in developing such a hospital plan before actual building could begin. Such details are beyond the scope of this paper, however, which has aimed only to formulate the general principles of hospital construction as applied to conditions in New York City.

SAMUEL W. LAMBERT, M.D.

THE IMPORTANCE OF PATHOLOGICAL THEORY FOR PRACTICAL MEDICINE*

Mr. President, colleagues of the faculty, and gentlemen of the student body: Twice only during the academic year do we become conscious of our solidarity as a college—at its beginning and at its close. Commencement is preeminently the day of the university as a whole, when the medical school takes its place among the many coordinate departments to make up a body which gives the lie to one of the axioms of mathematics, that the whole can be no greater than the sum of all its parts. Throughout the teaching year, we who instruct are too occupied with that particular branch of medicine on which our activities are focused to be more than dimly conscious of the shadows of our colleagues as they cross the periphery of our visual fields; and you, poor students, passing every hour from one enthusiast to another, each of whom demands from you absolute concentration, must develop a mental asthenopia which prevents clear vision. It is a good custom, therefore, that at the opening of the year we all, as members of a college, a company of students together, should sit down for an hour to view from some one standpoint the medicine which we spell with a big M, that empire of knowledge to which all our individual provinces are tributary. Each year the president selects from among us one who shall try to take you to his point of view and, as far as possible, enable you from there to see the larger medicine clearly, which only our united efforts can make you see whole. This duty is laid upon me today. When I recall my first presence at a similar occasion as a member of the faculty, and the charming address in which the late Professor Herter showed us the place of imagination and idealism in the medical sciences, I feel unworthy of the responsibility which I must assume.

As my daily task is to teach you about the practice of medicine,

---

*Address delivered at the opening exercises of the College of Physicians and Surgeons, New York City, September 25, 1912.

I must ask you to regard medicine now from a practical standpoint. The majority of you, when you leave this institution, will unquestionably become practitioners of medicine. Many of you will pride yourselves upon the fact that you are practical men, and he who reads the history of medicine aright will be glad that this should be your pride. From Hippocrates to Sydenham and John Hunter, most of the advances in medicine were made by practical men. But many of you, I fear, will go further and glory, not only in your knowledge of the practical and immediately useful in medicine, and, what is still more justifiable, in your practical ability to relieve the sick, but you may actually glory in your ignorance of medical theory. For this reason I ask you to consider with me the importance of pathological theory for practical medicine.

The term "practical medicine" means today something more than it has meant in the past. For us the conscious aim of practical medicine lies beyond the cure of disease and the alleviation of suffering. The ultimate aim is the health of each and every individual of the community. To safeguard this health is our first duty; our second duty to restore it, when it has become endangered. The alleviation of suffering, while highly important in itself and never to be neglected, is, from this standpoint, a secondary ideal in medicine.

I shall endeavor to show you how absolutely dependent is practical medicine for the accomplishment of its aims upon pathological theory. In medicine, as in other professions, theory and practice have often seemed to stand in contrast; to many minds they do so still. Since the days of Sydenham, British medicine especially has emphasized the active and the practical. When Edward Jenner wrote to John Hunter that he was interested in a tradition current in Gloucestershire, to the effect that dairyworkers who suffered from a certain disease called cowpox, contracted in the course of milking, were thereafter protected from smallpox, and that he intended to think about it, Hunter wrote in reply: "Don't think, make observations, investigate for yourself the truth of the tradition." Jenner followed the advice, and gave the world vaccination. This incident, in its beneficent results perhaps the most important in the history of medicine, serves to illustrate the significance of theory for medical science as well as for other sciences, and its contrast, not to practice, but to that bane of all practical callings, which is so commonly confounded with theory—speculation.

Every mind reacts to phenomena. Every mind possessed with intelligence not only receives sensory impressions and initiates motor acts in response thereto, but stores up and associates these impressions and reflects upon them. That the mind should endeavor to understand and to explain the phenomena presented to it is a condition of intelligence. The mode of mental reaction differs in different individuals, in each individual during growth from childhood to adult life, and in the race as a whole from the days of its earliest intellectual efforts to the present time. Speculation is much like the hasty and often fanciful reaction of the child. The speculative mind, when presented with an unusual occurrence, strives to evolve an explanation from its inner consciousness, usually by processes of analogy, and always with what to the trained mind seem inadequate data. To suspend judgment, and patiently to make further observations, is distasteful to it. It is characteristic of the speculative mind to build massive structures of generalization upon the smallest foundation of observed fact. The joining of the masonry may be faultless, the logic of the reasoning is often inescapable; but the flaw lies beneath all that, in the premises upon which the reasoning is based. The danger of speculation finds fit illustration in recent catastrophes that have befallen certain perfectly constructed concrete dams. The dams themselves were as solid as rock, but they rested on sliding strata or on mud; the result you know.

Theory, or hypothesis, as it is technically termed, in its truest sense does not antedate modern science. It expresses the development of the critical faculty in the human race, and may be regarded either as the creation or the creator of science. In seeking an explanation for phenomena, the scientifically trained mind makes use of a definite procedure. The first step is the accumulation of facts. The facts are then studied by the most accurate methods available, analyzed, and grouped according to any relationships which may be discovered; but not until a large array of facts has been obtained and relationships have been established, is the mind allowed to generalize. Then, if the findings appear to warrant it, a theory, a working hypothesis, is advanced, not as a permanent superstructure, but rather as a scaffolding. In the experimental sciences, the next step is crucial, the testing of the theory by carefully planned experiments, attempting to prove, under simplified conditions, the sequence of cause and effect which the mind had inferred from the relationships of the phenomena studied. Theory gives direction to the investigations of the scientist. Speculation, for the type of mind that indulges in it, precludes investigation by its logical perfection and its satisfying completeness. A theory gains the right to be considered a law when it affords a complete explanation of all known facts, and has had abundant confirmation by experiment. Even then new facts may alter its validity.

Medicine at its best has always been an observational science. It is now consciously an experimental science, and speculation has no place in it. Centuries before the existence of modern medical science, the best minds were conscious of this. Hippocrates himself said: "The student must rub and grind at nature, using his reason at the same time; but his reason must be a perceptive and interpretative, not a productive faculty, for he who lends himself to plausible ratiocination will find himself ere long in a blind alley; and those who have pursued this course have done no enduring service to medicine."

But though freedom from all speculative considerations might save the patients of Hippocrates from much meddlesome interference, this was at best a negative virtue and not a principle of progress. Hippocrates's mastery in external surgery and his admirable methods of personal hygiene stand out in high light against the background of his ignorance and helplessness in internal diseases, of which we have gained the mastery only through the advance of pathological theory. When the Alexandrian school was at its height, and anatomical and even physiological and pathological investigations were being pursued under the guiding genius of Herophilus and Erasistratus, a school of intensely practical men sprang up in opposition. These men discouraged all attempts at systematic thinking, and regarded even the study of these basic sciences as vain. Allbutt, in his interesting treatise on "The historical relations of medicine and surgery," tells us that "its spokesman, Serapion, protested against the great anatomists, that in medicine, observation and record are all sufficient." These men took the name of "empirics" and their successors are with us to this day—physicians who decry laboratory studies, and who hold that a true knowledge of disease can be acquired only at the bedside. True knowledge of disease can indeed only be acquired by the study of facts; but the medical facts that have been elicited and elucidated in laboratories during the past fifty years, have done more to revolutionize medical practice than the bedside observations of the past two thousand years.

Galen, great student of anatomy and physiology though he was, and the first man to employ animal experiments for the solution of physiological problems, nevertheless had in him something of the metaphysician which reacted violently against the teaching of the empirics. It was this metaphysical standpoint which led him to formulate the fatal doctrine that speculation shall guide experience. He actually required of his students lectures on philosophy as preliminary to medical study, and imposed upon the world a system of medical theory and practice which dominated men's minds for more than a thousand years. Until Vesalius studied anatomy afresh for himself in the sixteenth century, orthodoxy to Galenic teaching was the sole criterion of professional attainment. It is difficult for us to understand what Galen, or for that matter Hippocrates, meant by the pathological theory of the four humors. We cannot conceive of a world in which chemistry and chemical modes of thought were absent, and in which only the rudiments of physics had been apprehended by the boldest minds. The theory of the four humors seems to have been derived from the four elements of Empedocles, fire, water, earth, and air, of which the universe was supposed to be compounded. That health should be dependent upon the proper admixture in the human body of blood, mucus, yellow bile, and black bile, and disease should be due to a disproportionate increase in one over the other, is for us so fantastic as to be wholly unintelligible. Yet the term "dyscrasia," which Hippocrates used for a faulty admixture, persists to the present day. Galen added many details and strove to bring the facts of disease as he saw them into line with this primitive humoral pathology. In addition he introduced further speculations as to the "pneuma," and the doctrine of abnormal relaxation and constriction of the tissues. The latter he borrowed from the Methodist school, whose categories "laxative" and "astringent," as applied to drugs, are still in common use. All this primitive pathology was based on pure speculation, and more than that, it had the fatal defect—which exists in all metaphysical systems of medicine from the earliest demonism to the latest Christian Science—that it sought an explanation of disease, not of diseases.

What practice was under the Galenic tradition you may the better appreciate when I tell you that, in the treatment of all wounds, the chief endeavor was to promote suppuration freely, by the use of tents and other devices which were placed in the wounds; they were also treated with all manner of salves. Until the time of Ambroise Paré, almost all surgeons taught that gunshot wounds were poisoned wounds for which boiling oil, used freely, was the best application. Bleeding was the favorite remedy for most internal diseases, and the orthodox, following the Arabian commentators of Galen, practised this upon the side opposite the disease; in pneumonia, for instance, on the arm opposite the site of the pain. This was called derivative bleeding. Even in my school days, though in a somewhat different sense, echoes of the doctrine of derivation could be heard in therapeutic teaching. Allbutt tells an interesting tale of how this orthodox doctrine came to be overthrown. Early in the sixteenth century, Brissot, a professor in Paris and a student of Hippocrates, whose treatises had again come to light in the Renaissance, taught that bleeding should be practised on the same side as the disease, to remove the foul blood directly and attract the good. The controversy that ensued was so bitter that Parliament was invoked. Brissot was banished, and Charles V. proclaimed him to be as infamous as Luther. Pope Clement VII. even joined the fight, and Vesalius, too, was on the side of orthodoxy. While the strife was at its height, a relative of the emperor died of pneumonia, and it was rumored that he had been bled after the orthodox manner. The heretical teaching was thus confirmed. The incident, in Allbutt's opinion, played a real part in the overthrow of the Galenic tradition.

Only four centuries separate us from that controversy. What have been the pathological theories which have made them so full of progress in the conquest of disease? First in point of time, and first also in importance from a clinical standpoint, stands the anatomical theory of disease. It may seem strange to you that I should allude to the facts of pathological anatomy as in any way matters of theory. Yet, when Benivieni in the fifteenth century first began to conduct systematic autopsies, so as to discover what he called the "hidden causes of disease," he was clearly guided by an anatomical theory. This hypothesis, expressed by him in a Latin precept, which I shall spare you, insists that we must not only observe the disease itself, but with even more diligence search out the seat of it. What is this but a statement of his belief in a new theory, that diseases are associated with definite, discoverable anatomical lesions in the internal organs? Not until 1761, with the publication of Morgagni's epoch-making work, "De sedibus et causis morborum," did the anatomical theory of disease find a firm foothold in medicine, and pathological anatomy come into existence as a medical science. Its further development is a familiar story—through Bichat, with his teaching of general tissue anatomy and pathology; Leannec, who linked the physical signs of disease, which his new method of auscultation revealed, with the lesions demonstrated at autopsy; Rokitansky, with his one hundred thousand autopsies; to its full fruition in Virchow and the cellular pathology under whose forms of thought we all live and practise our calling today. The anatomical theory of disease has given to medicine its fundamental conceptions. To it we owe percussion and auscultation, and the ability to interpret the physical signs of hidden disease of which they are evidences. In its train has come one method after another for the exploration of eyes, of ears, of the various body cavities, and finally the magic of the Roentgen ray. These in themselves would be meaningless had not the pathological anatomists laid the foundation of the anatomical conception of disease. Working upon this theory in Guy's Hospital, Bright uncovered the lesions of the disease that bears his name, and dropsy passed out of the category of diseases into that of symptoms. Not only does modern medicine rest upon a knowledge of pathological anatomy, but it is now realized that skill in diagnosis cannot be attained without the witnessing of frequent autopsies. Let me urge each of you, as practical men, to do your part toward educating the public to realize the vital fact, that, without autopsies in our hospitals, there can be no safe training in diagnostic science and art.

Far-reaching as were the consequences of the anatomical theory in eradicating mysticism from medicine, and in initiating the overthrow of the last great speculative systems of Broussais, and Cullen, and Brown, it became clear that the anatomical theory was not all-sufficient. It soon was recognized that lesions are not the disease itself, nor the causes of disease. For practical medicine, and most of all for a successful prevention of disease, a knowledge of causes is a *sine qua non.* The earliest gropings after the truth that disease may be produced by the action of external agents can be found in the primitive demonistic theories. These conceptions, in modified form, survived for a long time in the domain of mental diseases, and they still persist in popular medicine and in Mrs. Eddy's teachings. Theories of external causation naturally found their greatest justification in the infectious diseases, and particularly in great epidemics. Ideas of atmospheric and even meteoric influences, of hypothetical miasms and contagia, contained glimmerings of the truth that epidemics are due to infectious agents that enter the body from without. But, except in so far as these theories created belief in the transmission of "contagious" diseases from person to person and assured protection through quarantine, these beliefs were unproductive of practical good. Quarantine itself was a two-edged sword which frequently imposed needless hardship, as in the case of quarantine for tuberculosis, as once practised in France. Until the germ theory of infectious disease was conceived by Pasteur, the science of preventive medicine—with the single exception of Jenner's discovery of the protective value of vaccination against smallpox—had not a single real achievement to its credit. How Pasteur, only a professor in a veterinary college and a chemist, had to fight against the almost united opposition of the medical leaders of his day, everyone of you should read for himself. You should read as well how his brilliant generalization was put by him to the test of long, patient and finely planned experiments, before he voiced his belief in its truth. Pasteur's triumph over the diseases of the lower animals is an old story. Later, Koch perfected the methods of investigation in this field, and formulated the rules of evidence. From the pioneer work of these two men, Pasteur and Koch, has come the discovery of the microorganisms which are responsible for most of the infectious diseases. What surgery, which is perhaps the most practical aspect of medicine, owes to the theory of infection, I need not tell you. The importance of this may be emphasized in your minds, if I remind you that down to the time of Lister, who died during the present year, it was customary with many surgeons by deliberate means to produce suppuration in wounds; they were glad to see what they called "healthy pus" in contrast with "sanious" or "ichorous" pus. This happened less than fifty years ago. Lister applied Pasteur's theory of infection to surgical practice, and upon this theory the whole present-day surgery of the internal organs is built.

Given an adequate theory of the causes of infectious disease, the next step in prevention must be the investigation of how the microscopic cause is transmitted, and how it gains access to the organism. In this field of research, the brilliant results of theory in its truest sense are conspicuous. Who could have foreseen that the apparently wind-borne miasm of malaria would be tracked by Manson and Ross to the stomach of the night-biting mosquito? The controversy over the priority of this discovery shows that others had speculated on it, but only when, in the trained mind, speculation was transformed into theory, and theory was put to its proper use, experimentation, did real knowledge come. To that theory practical medicine owes the ability to control two great plagues, yellow fever and malaria. Further extensions of the theory of insect carriers have yielded practical results in the rarer protozoal diseases and especially in the prevention of serious cattle plagues. What fruits it may have in store for us in the future, no one can predict. The theory of carriers, however, has still other aspects. The dissemination of diphtheria, the causation of some unexplained outbreaks of typhoid fever, the strange epidemics of cerebrospinal meningitis, and of the dreaded poliomyelitis, all seem dependent upon passive carriers of the infectious agents—healthy persons who harbor within their bodies and disseminate throughout the community the virus of deadly disease. It remains for practical medicine, and especially its right arm in the war of prevention, state or social medicine, to solve the problem of the control of these carriers.

That in one field of practical medicine, in obstetrics, the theory of the passive carrier preceded the knowledge of the infectious agent carried, shows how fruitful of practical good the scientifically-minded physician may be, even though his theory is inadequate or even in part untrue. In 1847 Semmelweis became convinced that the amount of puerperal fever in his wards in Vienna was in direct proportion to the amount of examination of the patients by medical students who had recently taken part in autopsies. Working upon this theory, Semmelweis introduced obligatory washings with chlorine water prior to each examination, and he thus reduced the mortality from this infection from 9.76 per cent. to 3.31 per cent. This was the first convincing demonstration of one of the most pathetic facts of medicine, that is, the dissemination of death by the hand of the physician himself. Semmelweis believed that the students brought septic material from the dead bodies. Our Oliver Wendell Holmes conceived a more correct theory of the direct transfer of infectious material from patient to patient. The complete victory of obstetrical surgery could not come until the bacteriology of puerperal fever and wound infections was worked out, and until many ingenious expedients were added by experimenting surgeons. The rubber glove is the last addition to the list. But, in advance of all that knowledge, Semmelweis saved the lives of more than six out of every hundred women who passed through his institution. The same is true in other fields. Yellow fever has been conquered by the help of the theory of insect carriers, while we are still ignorant of its parasitic cause. No other theory, in so short a time, has yielded more brilliantly practical results.

But knowledge of the infectious microorganisms and their modes of transmission does not explain everything. How do these organisms enter the body and produce changes in remote organs? Here the theories of portals of entry and of the selective affinity of certain bacteria for special organs or tissues are of the highest importance. The portal of entry of the tetanus bacillus, for instance, is a superficial wound. The symptoms of the disease, tetanus, however, are dependent upon the highly selective affinity of tetanus toxin for nerve tissue. This is an affinity so strong that Wassermann and Takaki have shown that brain tissue added to a solution of tetanus toxin, and then subjected to centrifugation, leaves the solution free from toxin. In such observations, and still more, as we shall see later, in the theories of immunity, we find the biological science of bacteriology turning to chemical theory for explication of the phenomena it has revealed.

To trace the successive steps in the development of the theories of immunity would prolong this address beyond the limits of your patience, because they are still too complex for any simple presentation. One needs but to study the picturesque diagrams of Ehrlich, to be convinced that in the immunity theories we deal with theories *par excellence,* and that they are still far from being accepted pathological laws. What have these theories given us? The theory of antitoxic immunity has armed the practitioner with weapons against diphtheria and tetanus, weapons which are no longer despised by anyone, though laughed at by some in the early days following von Behring's announcement. The methods of standardization of these antitoxins and the technic of their use have been reduced to almost mathematical precision, though pure antitoxin has never yet been seen by anyone, nor is its exact chemical constitution known. From the study of antitoxic immunity has sprung the elaborate side chain theory of Ehrlich, and the practical physician begins to talk about such absolutely hypothetical substances as "complement" and "immune body," "amboceptor," and "antigen," as though these were definite morphological and chemical entities. Not only does he talk about them, but he depends upon them, more than upon the observation and record of empirical medicine, in the diagnosis of some diseases. He depends upon them particularly in syphilis, in the treatment and eradication of which the Wassermann reaction today plays so conspicuous a part. This reaction owes its existence to Bordet's study of haemolysis, a development of the side chain theory, seemingly remote from any practical bearing. Other figments of the scientific imagination, such as the agglutins, have given us accurate methods for the differentiation of infectious fevers, most notably in the case of typhoid fever; the theory of agglutins having been applied by a practical physician, Widal, in the reaction which bears his name. Instances could be multiplied.

In the domain of preventive treatment, conspicuous advances have been made along the line of immunization, passive and active. Jenner's discovery of vaccination against smallpox, though the most important gift of medicine to mankind, led to no progress in the conquest of other diseases for more than half a century. Not until Pasteur made the chance observation, that fowls inoculated with cultures of the chicken cholera bacillus, which had stood in the laboratory for a few weeks, failed to die, though these same cultures had killed a short time earlier, and had set his trained mind, not only to patient observation and experiment, but also to thinking, did medicine gain a theory of immunity capable of being generally applied.

This work of Pasteur's illustrates as well as any incident in the history of medicine the truth of his own remark: "In the fields of observation, chance favors only the mind which is prepared." The untrained or the commonplace mind, meeting an exception to ideas it has previously entertained, either discards it as annoying, or attempts to explain it away. The trained mind sees in each new phenomenon the possible germ of a discovery. Many such discoveries, even at the bedside, unquestionably await those among you who will approach the study of disease with minds trained in the best pathological theory, embued with the methods of scientific analysis and criticism, and resourceful to plan and conduct crucial experiments. To do this presupposes that you have formed a theory which you put to the proof with open mind.

The latest ramifications of Ehrlich's side chain theory have developed out of his remarkable search for means of enhancing the specific affinities of drugs for the particular structure upon which attack is desired, while diminishing their poisonous effects upon the organism as a whole. They are among "the fairytales of science." What has been made possible in the chemotherapy of protozoal diseases is now matter of general knowledge; and that Salvarsan is an unquestionably practical outcome of highly theoretical considerations in Ehrlich's mind could be attested by a host of patients, and the bank accounts of a number of physicians. That this theory may in the future assist in the cure of cancer itself is now held out as a possibility.

Finally, a knowledge of the lesions of disease, of the causes of disease, and of their modes of transmission and action, does not complete the picture. The physician witnessing the course of an infectious fever or the gradual development of a chronic Bright's disease must ask himself, as he has from the dawn of the world, what is the disease itself? It is not the lesions, though the lesions are one manifestation. We have learned to discriminate between it and its cause. How shall we conceive it? Two hundred years before Christ, Erasistratus in Alexandria seems to have discerned the truth that the symptoms of disease are manifestations of a disordered physiology. Jean Fernel taught the same in Paris in the sixteenth century. Morgagni strove to correlate the symptoms during life with the lesions that he found after death. Only in the nineteenth century, however, with the rapid development of experimental physiology, did this conception take active root. Magendie enunciated it clearly, and now the study of the pathology of function, with its theories of pathological physiology such as one may read in Krehl's masterly book, have become a directing force in bedside investigation. From them, too, we gain many diagnostic resources, chemical and physical. Borrowing the methods of the physiological or chemical laboratory, we extend the field of our observation and enhance its accuracy, with constantly increasing insight into the mode of production of symptoms. Experimental pharmacology then enables us to combat the symptoms successfully.

But, again, the symptoms are not the disease. How shall we picture to ourselves this elusive something, which includes both lesions and symptoms? Disease for us is but the antithesis of health; it is a mode of life. If we conceive health as the normal mode, then disease is any departure from the normal. This is an abstraction, but no longer like the ancients do we sit down in our studies to allow our minds to work upon the abstraction: we go to our wards and laboratories to study not disease, but individual diseases, from one or another of the aspects that I have discussed. When we have comprehended a disease from all these aspects, we see it not as an entity, not static, but as something dynamic, a process. It is only a form of the life process, a special reaction of the organism against definite changes in its environment. Fever, for instance, is for us not a disease, but a symptom of many diseases; Galen's fantastic explanation of its cause no longer has any meaning for us. Furthermore, under the guidance of the theories of immunity, fever no longer appears to us as necessarily an evil symptom, something to be combated, but as an evidence of the natural reaction of the organism against invasion, in the course of which it develops immunity, and to be controlled only when excessive and dangerous in itself. Such altered conceptions are of inestimable importance in the daily task of the practical physician.

All treatment of disease in the individual, every prescription given by a physician to his patient, is a therapeutic experiment; and, except in the case of the most ignorant, it is an experiment based upon a theory. This theory we call a diagnosis. When diseases were conceived as entities, diagnosis meant merely the naming of the disease, and treatment followed by rule of thumb. I have a book not much over a hundred years old, "The practice of physic," in two parts. The first part gives the rules for determining the diagnosis of the disease. The other part contains the names of the various diseases with the appropriate treatment, set opposite in parallel columns. How far we have progressed from this, every beginner among you knows. Diagnosis to be complete must now be based on the examination of the patient for anatomical evidences of disease, the study of various body fluids and excretions in the laboratory for the etiological agent, and the search, at bedside and in laboratory, for all the various disturbances of function which may be present. Then, and only then, may the physician combine all the facts elicited into a complete and individual diagnosis, a theory of the disease process as it exists at the moment before his eyes; and upon this he may base a plan of treatment. Only the physician fully versed in the best pathological and physiological theory of his day can form a conception of the disease which approaches reality as nearly as the state of existing knowledge permits; and only a physician of this type can hope to add materially to that stock of knowledge. The former is within the power of every earnest man among you, and no one of you should be satisfied with less. It needs only that, during your student days, you become convinced of the fundamental importance of pathology, the science of disease, as the only sure basis for successful practice of the art of medicine. Keep this point of view throughout life, and, be your field of work conspicuous or obscure, you will be graduates of whom this College may be justly proud.

Are there among you any who shall voyage into the unknown, and return with discoveries to make your names famous and add new luster to the name of this University? Who shall foretell? America has had great physicians, but no American has yet set his name among the immortals who have opened new paths for all succeeding investigators. Such a one will surely come. Each generation stands on the shoulders of that which has preceded it. American physicians in the past have had to create new institutions, hospitals, laboratories, teaching organizations; but these have now taken form. Problems lie on every hand; the mystery of the cause of cancer, the dream of a specific cure for tuberculosis or pneumonia, the unraveling of the sad tangle of the disordered mind, to mention only examples: the man only is lacking. May some of you hear the call to that most practical medicine, the search for new facts on which to base truer theories of disease. May some of you be stirred by that spirit so nobly voiced in Tennyson's "Ulysses":

Yet all experience is an arch wherethrough
  Gleams that untraveled world, whose margin fades
Forever and forever when I move.
  How dull it is to pause, to make an end,
To rust unburnished, not to shine in use!
  As though to breathe were life. Life piled on life
Were all too little, and of one to me
  Little remains: but every hour is saved
From that eternal silence, something more,
  A bringer of new things; and vile it were
For some three suns to store and hoard myself
  And this gray spirit yearning in desire
To follow knowledge, like a sinking star,
  Beyond the utmost bound of human thought.

Theodore C. Janeway, M.D.

THE DEUTSCHES HAUS

AT a meeting of the Board of Trustees of Columbia University held on December 5, 1910, announcement was made of the gift to the University by Mr. Edward D. Adams, then president of the Germanistic Society of America, of a *Deutsches Haus.* In accordance with the terms of the gift, the private residence at 419 West 117th Street, within a stone's throw of the campus, was purchased by the University in the spring of 1911 and during the summer many alterations were made in the house in order to adapt it more directly to the purposes for which it was established. Professor Rudolf Tombo, Jr., associate professor of the Germanic languages and literatures of Columbia University and corresponding secretary of the Germanistic Society of America, was placed in charge of the *Haus* as director and with the aid of many generous contributions organized a library of contemporary German literature, which was opened in September, 1911. At the same time a bureau of academic information was established, which cooperates with a similar one in the University of Berlin. The *Haus* also contains private apartments for the Kaiser Wilhelm professor and the foreign guests of the Germanistic Society, and serves as the headquarters of that organization.

Efforts are at present being made to raise an endowment fund of one hundred thousand dollars, and it is hoped that the full amount may be donated in the near future. The *Haus* has been most fortunate in the matter of gifts. In addition to the thirty-thousand dollars presented by Mr. Edward D. Adams for the purchase and equipment of the *Haus,* ten thousand dollars were presented by Mr. George Ehret, two thousand dollars of which are to be devoted annually for five years to maintenance. Mr. Adolphus Busch of St. Louis has given ten thousand dollars for the endowment fund, and a conditional offer to contribute the last ten thousand dollars of the required fund has been made. Thirteen hundred and ninety-five dollars were contributed by Fritz Achelis, Herman Behr, A. Eilers, A. B. Hepburn, Rudolph Keppler, Felix Krueger, Willy Meyer, Herman Ridder, Josef Schick, Jacob Schiff, C. D. Stiefel, L. Vogelstein, Felix Warburg, and Paul Warburg, for the purpose of purchasing books for the library of contemporary literature and supplying the necessary magazines and newspapers.

Mr. Hugo Reisinger presented an oil painting of Christ by Arthur Kampf, former president of the Berlin Academy, and a landscape by Ernest Lawson; Mr. Herman Ridder, a portrait of the German Emperor by Müller-Ury; Ruth Payne Burgess, an oil portrait of the late Ministerialdirektor Friedrich Theodor Althoff, painted by herself; Mr. Hermann Struck, an etching of Gerhart Hauptmann; The Gesellig-Wissenschaftlicher Verein, an oil portrait of Dr. Abraham Jacobi; Mr. Edward D. Adams, a German and an American flag; Mr. Pierpont Adams, pictures of the Great Elector and of Frederick the Great; Mrs. George A Vietor, a bronze replica of Schlüter's equestrian statue of the Great Elector in Berlin, a bronze bust of Phœbus Apollo with pedestal, and two Kaulbach prints; Mrs. Martin Beckhard, a marble pedestal; the Misses Stettheimer, a statue of Goethe and one of Schiller. Photographs and pictures as well as books and magazines were received from various sources, including a number of German and American publishing houses.

A circular letter addressed to prominent German men of letters, containing a request for biographical material and signed photographs, met with the following favorable responses: Felix Dahn (sent by Mrs. Dahn), Ernst, Ertl, Eulenberg, Ewers, Falke, Frenssen, Greinz, Carl Hauptmann, Heer, Hegeler, Herzog, Heyse, Jensen (sent by Mrs. Jensen), Kröger, Thomas Mann, Presber, Schlaf, Voss, Wilbrandt (sent by his son), and Zahn. The portraits, a number of which contain interesting dedications, have been suitably framed and now adorn the walls of the library. Photographs have also been secured from Count Johann von Bernstorff, Imperial German Ambassador, the Honorable Andrew D. White, former Ambassador to Germany, Ernst von Possart, and others.

Through the generosity of Mr. Edward D. Adams, the library has come into the possession of a beautiful bookplate, and an album has been presented to the *Haus* to contain the photographs of the

THE DEUTSCHES HAUS

419, West 117 Street

Kaiser-Wilhelm professors. The *Haus* has also received a gift of a copy of an extra of the *Hamburger Fremdenblatt,* announcing the establishment of peace at the close of the Franco-German War.

It would be manifestly impracticable to attempt in the Deutsches Haus to install a collection of books and magazines covering the entire field of German culture, from the earliest times to the present day—for two reasons; in the first place, the space would prove inadequate, and secondly, it would result in much duplication of material: the Columbia University library possesses over five thousand volumes on German history, as does the New York Public Library, while in the field of German literature the former possesses 11,583 volumes and the latter 4,840, and in addition there are 10,300 volumes in the Ottendorfer (German) collection at New York University. The library of the *Haus,* therefore, is confined to material dealing with current literature, the period covered beginning approximately with the restoration of the Empire in 1871.

Inasmuch as a Bureau of German-American Research exists at the University of Pennsylvania, no attempt is made to emphasize this special feature here at the expense of our main interest, although the standard works dealing with the German element in the United States are of course available. To attempt to duplicate in any way the work that is being done by the Germanic Museum at Harvard University would also have been unwise and unnecessary. The object of all these undertakings should be effective cooperation, not duplication in the same field.

The collection consists of almost fifteen hundred volumes, and is being rapidly augmented. Most of the funds for the purchase of these books have been furnished by the group of gentlemen mentioned in a preceding section. Among the interesting volumes in the possession of the *Haus* may be mentioned Gerhart Hauptmann's "Promethidenloos," which was withdrawn from circulation immediately after publication, the first editions of his "Vor Sonnenaufgang," "De Waber" (dialect edition), "Hannele" (illustrated edition), "Elga," "Kaiser Karls Geisel," a copy of "Moderne Dichter-Charaktere" (1885), etc. In addition to the works from the field of German literature, there are included (in German translation) works by various non-German authors like Dumas, Maupassant, Zola, Maeterlinck, Ibsen, Björnson, Strindberg, Tolstoy, Dostoyevsky, Turgenieff, Walt Whitman, Oscar Wilde, and others who have influenced contemporary German writers, and there are also to be found on the shelves a limited number of works on contemporary German art, music, philosophy, history, etc., as well as grammars, dictionaries, and an encyclopedia.

The following magazines and newspapers are kept on file in the library, a number of these being supplied by the publishers: *Akademische Mitteilungen, College World, Columbia University Quarterly, Educational Review, Harvard Graduates Magazine, Hochschul-Nachrichten, Das Humanistische Gymnasium, The International, Internationale Monatsschrift, Ministerialblatt für Medizinalangelegenheiten, Teachers College Record, Zentralblatt für die Gesamte Unterrichtsverwaltung in Preussen, Zeitschrift für Hochschulpädagogik, The Bookman, Bühne und Welt, Current Literature, Daheim, Deutsche Rundschau, Deutsches Schrifttum, Das Echo, Eckart, Fliegende Blätter, Die Gartenlaube, Grenzboten, Jugend, Die Kunst, Kunst und Künstler, Kunst für Alle, Kunstwart, Leipziger Illustrierte Zeitung, Das Literarische Echo, Der Merker, Die Neue Rundschau, Nord und Süd, Die Schöne Literatur, Velhagen und Klasings Monatshefte, Westermanns Monatshefte, Die Woche, Berliner Lokalanzeiger, Dresdner Neueste Nachrichten, Frankfurter Zeitung, Kölnische Zeitung, Leipziger Neueste Nachrichten, Münchner Neueste Nachrichten, New-Yorker Staats-Zeitung, Tägliche Rundschau,* and *Vossische Zeitung.*

It is the object of the library not only to collect the most important books in the field of contemporary German literature and to keep on file a number of German magazines and newspapers, but also to bring together as much fugitive material as possible—for example, valuable magazine articles and newspaper clippings concerning prominent men of letters are being collected and classified, so that an American critic or student who wishes to find out something about a living German writer has access to material that is not available at any other library or university. In other words, the library of the *Haus* is a repository for material of immediate interest, and it serves as a valuable adjunct to the work conducted by students in the field of contemporary German literature at Colum-

OFFICE OF THE DIRECTOR

A CORNER OF THE LIBRARY

BUREAU OF ACADEMIC INFORMATION

PERIODICAL AND NEWSPAPER ROOM

bia University. A large number of clippings have been collected, filed, and catalogued, and have proved of great service to students of modern Germany, not only at Columbia University but elsewhere. The library catalogue is an analytical one, containing under any given author not only a list of the works by and about him to be found in the library, but also a card for each important reference in any volume located on our shelves. A card for each of our books is also filed in the card catalogue of the general University library. Readers' cards for the use of the library are issued not only to students in the graduate courses at Columbia University, but also to all teachers of German in the universities, colleges, and secondary schools, both public and private, in and near New York, as well as to all persons directly interested in contemporary German literature.

The Bureau of Academic Information, where students may obtain all possible information regarding educational institutions in Germany and the United States, was organized when the *Haus* was first established. There have been numerous written requests for information, largely in response to a circular letter sent out to the deans of the professional and non-professional graduate schools of the leading American universities, and to a similar letter addressed to the rectors of the German, Austrian and Swiss universities. In addition numerous inquirers have presented themselves in person at the *Haus,* and furthermore the director serves in the capacity of advisor to the Kaiser Wilhelm professor. Advantage was taken of the presence in April of Professor Wilhelm Paszkowski, director of the Akademische Auskunftsstelle at the University of Berlin, to refer directly to him several Americans who contemplated foreign study. A number of interviews of this nature were arranged, greatly to the satisfaction of the students involved.

The following items will convey some idea of the nature of the miscellaneous inquiries received: Information regarding the work in journalism conducted at German universities; lists of persons in New York and vicinity interested in German life and letters; statistics about students of medicine in Germany, about the number of women at German universities, about the geographical distribution of the student body of American universities; German academic costume; bibliographical material about contemporary German authors; cost of living in various German university towns, etc., etc. Efforts were also made to interest American university men in the activities of the *Gesellschaft für Hochschul-Pädagogik.*

In connection with the Bureau of Academic Information, there is also maintained a reference library, now numbering over six hundred volumes dealing with higher education in Germany and the United States. Announcements and other publications of the German and leading American universities and technical schools are also kept on file for reference.

A considerable number of catalogues and other printed material published by various American institutions were secured for the new Bureau of Academic Information established at the University of Leipzig in 1911. On May 31 and June 1, 1912, the director attended a convention in Berlin of representatives of similar bureaus located at Berlin, Leipzig, Vienna, and Paris, as well as of representatives of the Amerika Institut and the Bureau of German Libraries, at which the various activities of these bureaus were discussed and arrangements made for more thorough cooperation between these different countries.

The *Deutsches Haus,* while anxious to be of assistance to Germans in search of employment, can not, of course, serve as an employment agency. Numerous requests to supply positions of various kinds have been received, and the *Haus* has been of some service in a limited way in a special field, that is, several teaching (Normal College, Wesleyan University, Yale University) and tutoring positions have been secured, and opportunities for translating and lecturing have been provided. The *Haus* will hereafter cooperate along these lines with the Appointment Committee of Columbia University, and will keep constantly in touch with various institutions of learning by means of circular letters of inquiry.

In addition to the lectures arranged annually by the Germanistic Society of America, arrangements were made to have the Kaiser Wilhelm professor deliver a series of lectures in the German language at Columbia University on Wednesday evenings in November and December. It is the intention to have such a series delivered annually. Last season's lectures were delivered by Josef Schick, Ph.D., professor of English philology in the University of

Munich, Kaiser Wilhelm professor 1911–12, and they attracted large and appreciative audiences. Professor Schick spoke on "Shakspere's Tragödien." Beginning November 13, 1912, Felix Krueger, Ph.D., professor of philosophy and psychology in the University of Halle, Kaiser Wilhelm professor 1912–13, will deliver a series of lectures on "Die Frau im Leben der Naturvölker."

Eloquent testimony of the interest taken in the *Deutsches Haus*, not only in the United States but abroad, is furnished by the entries in the visitors' register. In addition to Professor Josef Schick of the University of Munich, Professor Wilhelm Paszkowski of the University of Berlin, Professor Felix Krueger of the University of Halle, and Professor Camillo von Klenze of Brown University, all of whom resided in the *Haus* for a considerable period, it has welcomed a host of distinguished visitors from all sections of Germany, as well as from Australia, Belgium, England, France, and the Scandinavian countries. The *Haus* has been of considerable service to German visitors in supplying them with letters of introduction to various institutions, such as universities, colleges, observatories, libraries, museums, hospitals, medical institutes, engineering societies, etc., throughout the country, and in a number of instances the itineraries of trips undertaken by German scholars and students were prepared here. Numerous letters of introduction have also been supplied to Americans going abroad for study or research.

The *Haus* lends itself admirably to small social functions. During the year under consideration Professor and Mrs. Josef Schick tendered a reception to their friends on December 19, 1911, and on March 19, 1912, the Germanistic Society of America gave a reception to Professor Wilhelm Paszkowski of the University of Berlin and Mrs. Paszkowski. On May 8, 1912, Count Johann von Bernstorff, Imperial German Ambassador, was entertained at an informal tea by the directors of the Germanistic Society of America, and on October 29 the Germanistic Society tendered a reception to Professor Felix Krueger and Mrs. Krueger.

During the short period of its existence the *Haus* has done much to emphasize and enhance the value of the cordial intellectual relations between Germany and the United States, and the growing interest shown in its activities both here and abroad is an earnest of its increasing usefulness. RUDOLF TOMBO, JR.

AIMS AND METHODS OF THE SCHOOL OF JOURNALISM*

EACH great testamentary gift to education has the happy and lasting fortune that while other wills are probated once, such a testament has its yearly probate each autumn as those assemble who profit by its benefits. We meet today at the first of these annual probates of the bequest of Joseph Pulitzer which stretch down before us through slow time. Nothing in the works of men endures like gifts built into the fabric of a university. This institution in one hundred and fifty years has already outlasted on this island, the flag, the allegiance and the government under which as King's College it was founded. Revolutions have again and again destroyed the Government of France, but never the University of Paris. Sites of learning may even outlast the civilization and faith which gave them birth and I have seen arches which look down today on the silent tread of Mohammedan Softas, who walk where Christian priests were once trained, and they in their turn had succeeded sophist and philosopher. If some discovery provided in the air transportation, safe, swift and cheap, the sea-port would lose its present value in commerce and the level ways which have built up this metropolis would no longer be thronged with freight and passenger, but in its buildings on this height Columbia would still do its work as Bologna has lost the trade whose profits and traffic created its university but retains the institution itself as the last relic of a greater glory.

It is in this perpetual and perpetuating perspective of years, generations and centuries that we view today the action of the trustees of Columbia in founding this School to receive the gift which makes it the first endowed institution doing its work. It was yesterday but eleven months since Joseph Pulitzer died, and the School for which he provided is open with over one hundred students and twenty-four officers of instruction. The School draws its students from twenty-two states and countries. Students are in its courses from China, New Zealand and Turkey. Of its teaching force one-third, eight, have been newspaper men and four of these have spent most or all of their active lives in this calling. In this country, there were in 1900 thirty thousand journalists against one hundred and fourteen thousand lawyers and one hundred and thirty-four thousand physicians of all schools. This was twenty-seven per cent. as many journalists as there were lawyers and twenty-three per cent. as many journalists as there were doctors. The School of Journalism has twenty-two per cent. as many students as were last year in the Law School of this University and twenty-five per cent. as many as were in its Medical School. It is an open proof of public confidence in the character, need and prospects of the new professional training offered in this new field by Columbia University that the attendance at the opening of this School, compared with the number in the schools of law and medicine, in this institution, matches the proportion of the number in these two callings to the number in journalism in the country at large.

---

* Address delivered at the opening of the School of Journalism, Earl Hall, September 30, 1912.

But while schools and colleges in a university instruct individuals, the university teaches the nation, and the first great aim of a university in establishing a new professional school must be to educate the public in a demand for the training it offers. This has already been accomplished. The joint fruit of the act of the University in accepting the endowment of a School of Journalism and of a journalist foremost in his day in making the gift has been a sudden and radical change in opinion both of the public and the newspaper on professional training for the journalist.

In America, great changes are worked by wide discussion. The discussion of one year settles the opinion of the next and out of opinion comes public deed and public destiny. No year has seen in our newspapers such widespread discussion of the training and teaching of newspaper men as the past six months. The prescient capacity which Joseph Pulitzer possessed to turn the stream of daily discussion over the land, as the rivers of water are turned by the husbandman's foot, had no more amazing fruit in his lifetime than the fashion in which the announcement that Columbia University was to establish, organize and open the School whose endowment he provided has changed the whole face of public and professional opinion upon the education of journalists. More articles and more references relating to training for this calling have appeared in the last half-year than for twenty years before. Under this discussion, the whole aspect of the problem has suddenly altered. The genetic moment has come. The public sees the need of the training. The newspaper admits it and demands it. Universities over the whole country are offering it. Solitary courses in the training of journalists running for the brief space of a semester or a year and unnoticed in the very institutions which offered them, have suddenly become known and accepted. Courses longer and better established expand into an ordered curriculum. The public of newspapers and of their readers has learned for the first time that some twenty institutions are endeavoring to train journalists because Columbia University has stepped forward, with adequate means for this necessary task. It is a memorable fact in university teaching that this School opened. It is even more memorable in the development of our national education that its opening has opened the mind of the nation to a new and needed field of professional training. What was doubted as possible is accepted as practical. What was challenged as chimerical is now in actual operation. What was once derided by the calling itself is approved and demanded by it.

The preparation for the organization and opening of this School has changed the venue of the issue from a challenge to any training to question as to what the training shall be. The acceptance by a great university of this gift has altered the whole aspect of the teaching of journalists. What was vague purpose and proffer of training in specific aspects of newswriting has become instead the serious educational problem as to how, in Mr. Pulitzer's noble and penetrating utterance which has become the motto and forefront of this School, "to make better journalists who will make better newspapers which will better serve the public." The day is over for discussing the need or the character of this education. Our subject today is its aim and method.

The broad lines are accepted by all. The world is international. A journalist can no longer do his full work within the horizon of his own tongue. He must have a reading command of either

French or German, both preferably, one certainly. The object of journalism is the service of the state and no man can serve the state unless he knows its history, its structure and its working in administrative and party government. Recent history must be known or the relation of nations will be an enigma and foreign news will be a mere maze. Economics must open the way to a knowledge of the problems of labor and of capital. Literature must be studied. There must be a rapid view of the sciences. All this must be recent. European history in the School of Journalism will be chiefly the period since 1870. Its survey of European literature will begin with that year. The trust and the union are the chief care of its economics. Pending issues fill its discussion of constitutional law. The whole object of the School must be to concentrate its training on the issues, the problems, the policies, the authors and the agitation which will people the next thirty years. Each new change must be met by changes in its training. By another year, the School of Journalism expects to offer to the women who enter it, through the wider resources of the University, special opportunities to fit themselves for the work demanded by the woman's page, and by kindred discussion steadily growing in importance and extent in the daily and in all periodical literature. An increasing demand arises in the newspaper for sociological discussion on all the issues which spring from the needs of the poor and downtrodden, those who physically or socially, it matters not which, are the lame, the halt and the blind. The School of Journalism in its first year already has those who seek its training in writing and in reporting, but turn from the political and economic courses to those offered in the University in sociology and charity.

Writing and reporting are the necessary care and center of a School of Journalism. A man may be as wise as Solomon but unless he can write, he can reach no one. A man may throb with desire to serve the public but unless he has a trained instinct in the facts the public wants and knows how to get them in life or in books, he is useless as a journalist. Not for him are the joys of news getting or the thrill of its presentation. Not for him are the ardor and enthusiasm with which public facts are found and marshaled when great issues are in the valley of decision and all the heights about are thronged with a nation waiting to be persuaded, a vast jury to decide the destiny of days as yet unsunned and unseen.

All turns on writing and on writing as presentation. The vice of writing is mere form. The glory and strength of writing, which makes it a sword in the hands of men able to wield it, is a sure grip on presentation. The man who dreams about writing carves mere outer form. He never reaches anyone. What he says has no relation to his own mind and his own experience. Unless a man has lived what he writes, what he writes will not live in the minds of others. The newspaper man gets facts and writes them. He never writes on a mere subject for the subject's sake. The actual for him is the only fit aim for writing. His hand stirs to write because his mind is quickened by "news," fact or event. Like a court, a mere moot question does not set him in action. He has learned that an editorial is mere words unless it has a news peg, a nail driven in a sure place on which it can hang in the minds of men. On a Sunday, last spring, an article on the safety of life on an ocean liner if it had appeared in a New York daily would have been worthless and unread. On the next Tuesday it was vital. The *Titanic* had sunk between.

Writing for the purpose of the newspaper and I personally believe all good writing turns on this. Get a man to writing on an artificial subject and his writing becomes artificial. Give him a real fact and his writing becomes real. On this principle the writing of the School of Journalism is organized. The subjects on which men are to write are to come from the work they are doing. In the first year of the School, each study is to furnish the subject for the writing in "Freshman English." The courses in science, in history and on government will each in turn be used to give topics, seen from the standpoint of the newspaper. The entire object is to make vivid presentation possible by writing as a reporter what is learned as a student. In the second year, a weekly "business article" such as many papers print on Monday will at once use and give point to economic study. The history of Europe since 1870 will give subjects which will tax every newspaper style. So will English literature, if the student be asked to report in his own way what he might have seen at the Tabard Inn when the Canterbury pilgrims were there, for Chaucer has made each character real; but if the student tries to tell about the "place of Chaucer in literature," he is "in the air." It is not part of his experience.

Where for the first two years, studies give subjects, for the last two years, the news of a great city gives them. When the battleship fleet comes here, each man in the fourth year class will study a battleship in advance and through the courtesy of Admiral Osterhaus will visit the battleship and, conducted by an officer, see what he has come prepared to understand and return to write upon it and have a new knowledge for life of the subject. Beginning with short reports on lesser events in the third and fourth years, the work will grow to more important events and longer stories. The political editorials will be studied and practised while the presidential campaign is in progress. New plays will give training in dramatic notices, the National Academy exhibition in art criticism, and new books, when their flood comes, in book reviewing. The course in political science in the first year has been readjusted to take advantage of the presidential election. Election week will be used to train in handling election news, and week by week the manifold of the various services supplying news to newspapers will be used to supply training in editing copy, in writing headlines and in rewriting.*

From first to last this training in the art of the newspaper writer, from the first week of active work to the end of the four year course, will be dealing with fact and event learned in book or assignment as the basis and material of expression and presentation, description and criticism, "news," criticism and editorial.

TALCOTT WILLIAMS

---

* This plan has been carried out. The students of the school reported the trial of ex-Lieutenant Becker for murder and six of the fourth year class heard the jury give its verdict of guilty at midnight and returned to the University to write their report. The members of the class were distributed in the New York newspaper offices the night of election.

THE INTERNATIONAL COMMISSION OF JURISTS

AT Rio de Janeiro, on the twenty-sixth of June last, there took place the opening session of an international congress of a novel and interesting kind. The object of the meeting was the carrying into effect of the provisions of the Pan American treaty or convention of August 23, 1906, by which the American nations agreed to establish an International Commission of Jurists, composed of one delegate from each country, to codify international law, public and private. By an agreement signed on the fifteenth of January last, it was provided that each government might be represented "by two delegates instead of one, but with a single vote." Eighteen states—the United States, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru, Salvador, Uruguay, and Venezuela—sent delegates to the congress. The United States was represented by John Bassett Moore, as delegate, and Frederick Van Dyne, assistant solicitor of the Department of State, as technical delegate. Necessarily, the first meeting of the Commission was devoted to organization and the distribution of work. Dr. Epitacio Pessoa, first Brazilian delegate, was chosen as president. The task of preparing a plan of work was referred to a committee of five, on which the United States, Argentina, Brazil, Chile, and Peru were represented, and of which the delegate of the United States was chairman. By the report of this committee, which was adopted by the congress, the Commission is divided into six committees, four on public international law and two on private international law. These committees have their headquarters, respectively, at Washington, Rio de Janeiro, Santiago (Chile), Buenos Aires, Montevideo, and Lima. To the first committee, of which Mr. Moore, the United States delegate, is chairman, are assigned maritime war, and the rights and duties of neutrals; to the second, of which Dr. Pessoa, first Brazilian delegate, is chairman, are assigned the subjects of war on land, civil war, and the claims of foreigners growing out of such wars. The third committee, of which Señor Norberto Quirno Costa, of Argentina, is chairman, is charged with the consideration of international law in time of peace. The fourth committee deals with the pacific settlement of international disputes, and the organization of international tribunals. Of this committee, the chairman is Señor Miguel Cruchaga Torconal, of Chile. Señores Cecilio Baez, of Paraguay, and Alberto Elmore, of Peru, are the respective chairmen of the committees on private international law that meet at Montevideo and Lima. The subjects assigned to the first of these committees are capacity, the status of aliens, domestic relations, and succession; to the second, matters of private international law not embraced in the foregoing enumeration, including the conflict of penal laws. Each of the six committees, before proceeding to the formulation of drafts of codes on the subjects with which it is charged, is directed to obtain from each government a report on the state of its laws, decisions and practice relating to such subjects. These reports are to be printed in English, Portuguese, Spanish, and French, and are to be exchanged, so that the committees as they proceed with their task may each have in hand a comprehensive body of authentic information as to all the subjects before the Commission. The next general meeting of the International Commission of Jurists is to begin at Rio de Janeiro in June, 1914. Its duration probably will be much greater than that of the recent congress, which lasted a month. The work of the recent congress, being preliminary in character, could be completed in less time than would be required for the discussion and adoption of drafts of codes.

J. B. M.

EDITORIAL COMMENT

The Discovery of the Mind

In a discussion of education it is easy enough to be interesting, or exciting, or startling, or amazing; for none of these qualities is inconsistent with being ignorant, superficial, confused, fragmentary, prejudiced, or even mad. Examples abound. They abound in such profusion and variety that there seems to be left but one uncrowded way to being original—the way of sanity, wholeness and elevation. On this account the address delivered by Professor Woodbridge at the opening exercises of the University, and printed in full elsewhere in this issue, is regarded as an exceptionally original and important deliverance.

The doctrine that "the mind needs repeatedly to be discovered," because a sense of its presence and power is repeatedly lost; the doctrine that history, whether of man or of individual men and women, may be written in terms of such discovery and loss; the doctrine that each new discovery of the mind is betokened by the vision of an infinitely happier humanity to be realized through endless subjugation of nature to the service of man; the doctrine that any given time or period is modern or not according as it is or is not a time when the mind is discovered; the doctrine that "schools exist because the mind has been discovered" and that their programs and standards should be determined in the light of such discovery; the doctrine that a genuine university is the highest of human institutions, because it is "the organized discovery of the mind," and that, for the same reason, the idea of a university is eternal and unchanging, though its courses of study and its methods may change in response to a new vision of opportunity or a new sense of power: these doctrines and such as these, notable for their sanity, wholeness, and elevation, and presented, as they are presented, with due regard to structure and form, constitute a stimulating and significant contribution to educational theory.

Hospital Construction

From the time of early monastic institutions down to a third of a century ago architects of hospitals were working largely in the dark, for the causation of disease and therefore the essential requirements for the treatment of patients were still obscure. Then came the germ theory to throw a flood of light upon the problem, and with the increasing recognition of the necessity of cleanliness, abundant sunlight and pure air the utilitarian requirements of hospitals have come to be fairly well recognized. The architectural plan that in recent years has met with most favor is the so-called pavilion plan, which provides comparatively small buildings of one, two, or exceptionally, three, stories connected by covered corridors. The great cost of land makes such a plan impracticable in a city like New York. To obviate the difficulty, Dean Lambert has with great acumen combined the principles that have now become recognized as essentials of the ward unit and the principles of construction of large modern buildings into a new plan for a hospital intended to occupy a single New York city block. In this the typical ward is relatively small, with its long axis extending north and south, abundant windows on its east and west, a balcony across its southern end, and all its requirements for service, for communication with other parts of the hospital and for teaching, at its northern end. Such units, multiplied, constitute the hospital; but instead of being placed side by side, each ward occupying its own plot of ground, as in the pavilion plan, they are piled one above another to the height of ten stories. In the New York block, short from north to south and long from east to west, several such narrow, ten-storied barracks separated by courts are to be placed side by side, joined together at their northern ends by a long and narrow building extending east and west, but themselves freely exposed to the sun and prevailing winds to the east, south and west. With the lower three stories of such a building devoted largely to administration, and the upper seven stories to the immediate care of the sick, the patients would receive the most abundant advantages of light and air that a New York block is capable of supplying. This plan is subject to some modification and considerable elaboration in detail in adapting it to the various needs of a large hospital and one which is intended to serve at the same time as the hospital of a school of medicine. But its fundamental simplicity and obvious adaption to hygienic and geographical requirements argue strongly in its favor. In designing the university hospital of the future, it will be necessary to give to Dean Lambert's plan very serious consideration.

It should, however, be clearly understood that the hospital thus planned, admirable as it is, is not the equivalent of a complete building for a school of medicine: for besides the omission of various medical specialties, such as obstetrics, orthopedic surgery and psychiatry, there is no provision for anatomy, physiology, physiological chemistry and pharmacology, the fundamental sciences on which rest the whole medical structure, and which require large space and varied equip-ments. In the contemplation of Columbia's future medical needs, therefore, the University hospital cannot be considered as a thing by itself.

Professor Janeway's Address

Professor Janeway's address at the opening of the College of Physicians and Surgeons in September was pitched upon a high ethical and scientific plane. "The ultimate aim of practical medicine," he says, "is the health of each and every individual of the community. To safeguard this health is our first duty; our second duty to restore it when it has become endangered. . . . The medical facts that have been elicited and elucidated in laboratories during the past fifty years have done more to revolutionize medical practice than the bedside observations of the past two thousand years. . . . Only the physician fully versed in the best pathological and physiological theory of his day can form a conception of the disease which approaches reality as nearly as the state of existing knowledge permits." These declarations—which come from a busy practitioner—express concisely and unequivocally the spirit of the best of modern medicine. Medicine has a higher function than the cure of the sick or the alleviation of suffering. The way in which health is to be maintained, in which disease is to be prevented, is not to be learned at the bedside. Nor is the treatment of the sick any longer chiefly dependent on the observation of symptoms, the external manifestations of disease. A knowledge of what modern science has to offer of normal bodily function and of deranged bodily function is the necessary equipment of the modern medical man of science. Physiology and pathology go hand in hand and their advance is directed chiefly by the laboratories, those institutions in which the conditions of health and disease can be controlled and experimentally altered at will. It is difficult to convince the medical student of these seemingly obvious truths, and even many medical practitioners do not appreciate their importance. But they are continually being forced upon the enlightened physician by his experiences in the sick room. To the laboratory he must turn for the solution of his problems. A school of medicine cannot therefore be a leader in modern medical theory and practice unless it possesses laboratories well equipped for the study of the living body in all its varied normal and abnormal activities.

The appointment of Professor Francis Carter Wood to the directorship of the George Crocker Special Research Fund is the most impor-

The Crocker Fund

tant step in the organization of this large undertaking for the investigation of cancer that has been made by the University since it came into possession of the Crocker Fund. During the four years since Mr. Crocker made his first gift, different features of the cancer problem have been investigated in various of the university laboratories, and one substantial quarto volume has been published containing, with many illustrations, studies of certain pathological aspects of the general subject. Other volumes of researches in cancer and allied subjects are already planned. Dr. Wood is well fitted, by his administrative capacities, the breadth of his medical culture and medical sympathies and his special training as a scientific pathologist, to undertake the duties of this latest of the University's medical posts. Under him there will be a thorough organization of the enterprise; investigation will be amplified; an intimate acquaintance will be maintained with the investigations being pursued in other cancer institutions throughout the world; and cooperation in research, if desirable, will be rendered possible. In recent years the problem of cancer has been brought definitely within the sphere of experimentation and has become preeminently a problem of the laboratory. Columbia now bids fair to rank as one of the most active of the many centers in which this problem is being attacked.

Change of Corporate Title

The recent change of corporate name by which, through the action of the Supreme Court, upon the petition of the Trustees, "Columbia College" became "Columbia University" is in one respect only a formal recognition of an accomplished and accepted fact, but as marking the attainment of a long cherished purpose, it is an event of historic importance. As President Barnard said in his inaugural address, delivered October 4, 1864, "The Board of Trustees have long entertained a purpose to extend the field of instruction occupied by the institution, so that it may embrace at once larger and higher ground," and few if any have contributed more to its enlargement and uplifting than the speaker. To the hope and expectation which Barnard expressed in his inaugural address that the College might develop into "the full ideal of a University," coupled with his assiduous labors to that end and the inspiration which he imparted to others, is largely to be attributed the advance which the University has made toward becoming that ideal.

While the change of title might with entire propriety have been made twenty years earlier when the University organization was effected and the University Council established, it is even more appropriate at the present time when the standing of the University as such has become universally recognized, and when the College as such has been established more firmly than ever before as the guardian of that "course of collegiate training" which Barnard so warmly advocated in his inaugural address.

The Retirement of Dean Burgess

Universities, as President Butler has reminded us, are longer-lived than states; and the man who aids in shaping the organization and the policy of a university has a chance of being longer if less widely remembered than the man who helps to mould a commonwealth. To few persons has it been given to leave deeper traces of personal influence in the form and spirit of a great university than Dean Burgess leaves at Columbia. A service of thirty-six years in a period of transition and of rapid development gave him exceptional opportunities; but the extent to which he was able to guide that development, the degree in which he succeeded in animating the old college and its associated schools with the university spirit, and in finding for that spirit a suitable organic form, proved his possession of exceptional foresight, constructive genius and powers of leadership. The more tangible or visible things that he did or helped to do need not here be rehearsed. They are writ large in the history of the University, and the more important of them—those which alone could here be emphasized—have been noted in the resolutions recently passed by his colleagues and by the trustees. Of deeper and more abiding significance, however, is the influence which he exerted upon the intangible and invisible spirit of the University. The really essential traditions of a true university are liberty of thought and of speech, equality of all conscientious and capable inquirers and fraternity of all members of the republic of letters and sciences. These high ideals Dean Burgess has done much to preserve and to foster. He has stood always for freedom of inquiry on the part of teachers and of students. Although no man forms more definite conclusions or holds them with greater tenacity, he has always shown a broad tolerance of divergent views and opinions. As senior professor and dean of the faculty that he founded, as dean of all the non-professional graduate faculties, and as the first of Columbia's exchange professors at Berlin, he has done much to promote a spirit of brotherhood among all who are laboring side by side in the eternal search for truth.

Arnold Bennett on Columbia

Last fall the British novelist, Mr. Arnold Bennett, paid a flying visit to this country to survey our civilization from a car-window. He has embodied the result of his hasty observations in a volume entitled "Your United States," just published by Harper and Brothers. He seems to have spent part of an afternoon at Columbia and to have carried away very pleasant impressions. His first impression was that "all this is terribly new" and that Columbia was an exemplification of the eternal youth which friendly foreigners always find in America. And it is perhaps an evidence of this juvenility that we are still interested in the casual impressions of these friendly foreigners. Mr. Bennett is emphatically friendly and no less emphatically frank. He found some of our buildings ugly,—so it is lucky that he came over a score of years too late to behold the venerable *maison de punk*. On the other hand, he declared that the library is "a building in which no university and no age could feel anything but pride." He found Columbia "full of piquancies," and among these piquancies were "the visibility of the president" and "the life-sized locomotive." The one really significant observation in his record of his fleeting visit is this statement, that "far more important than stone and marble was the passionate affection for Columbia which I observed in certain of her sons who had nevertheless known other universities,—a passionate affection also perhaps brought into being since 1893 (!) but not to be surpassed in honest fervency and loyalty by influences more venerable."

State Scholarships for the College

It will be greatly in the interest of Columbia College and of the University as a whole, if the suggestion made by President Butler at the annual meeting of the Association of the Alumni of Columbia College on October 28, and contained also in his Annual Report, can be acted on without delay.

It is a well known characteristic of American colleges that they tend to draw their students from the immediate neighborhood. In some of the smaller colleges the percentage of students so drawn rises as high as ninety-five. It is not quite possible to tell with accuracy what the percentage of students from the immediate neighborhood is in Columbia College, for not a few students who come to Columbia each year register themselves as residents of New York, although perhaps they have never been in the city until a few days before registration.

In the case of Columbia College, pressed upon as it is by the mixed population of a great city, it is doubly important to adopt such policies as will keep its constituency truly national and representative, and secure each year a competent body of students of the older American stocks drawn from all parts of the country. It is plain that if such students are to reap to the full the advantages that Columbia College offers, and if in turn the College is to gain what they have to give, these students should live in the residence halls. The President has, therefore, proposed the establishment of competitive scholarships, one for each state, having an annual value of approximately three hundred dollars, which would be sufficient to meet the cost of tuition in the College as well as the average rate charged for room-rent in Hartley Hall.

The President further proposes that in awarding these scholarships, preference should be given to sons of alumni of Columbia University, and other things being equal, the sons of alumni of Columbia College. The purpose of this latter suggestion is obvious and commendable. It has in view the maintenance and upbuilding of a Columbia tradition continued in the same families from generation to generation, which tradition is of as great value to the body politic as to the College about which it centers.

We need not wait until the large sum of money that would be needed to endow these scholarships permanently can be secured. Individuals and the organized alumni everywhere should exert themselves to bring about the establishment at once of such scholarships in and for their several states. It would only be necessary to provide the sum of three hundred dollars a year to start the plan in any state, and when all four scholarships from a given state were filled, the annual cost would be but twelve hundred dollars. The return in influence and in service would be incalculable.

The Quarterly is only too happy to support this valuable and entirely practicable plan, and to urge that no effort be spared to act promptly and favorably upon it.

Student Migration

The student of recent registration figures at Columbia may well wonder whether the oft prophesied migration of American college and university students has begun in good earnest. In Germany migration is such a common feature that a university graduate is known and classified primarily as the student of such and such men, rather than as holding the degree of any particular university. With us, although there has always been a sharp break between the college and the professional or graduate school, the candidate for any particular degree who does not fulfil the requirement for it at a single institution has been until recently the rather marked exception. That these conditions are changing, in so far as the cases where Columbia as a *terminus ad quem* are concerned, at any rate, may be seen if we examine the percentage of new matriculants this fall who entered with advanced standing:

	Advanced standing	Percentage of new matriculants
Law	39	18.7
Medicine	17	14.7
Engineering	84	38.8
Architecture	13	41.1
Barnard	62	33.1
College	88	36.1

The exact figures for the graduate schools are not available, but here the tendency is evidently the same.

The figures for the College are particularly interesting. The students entering with advanced standing come from 48 different institutions. They divide themselves into three rather sharply marked classes. There are students from smaller institutions who want to go farther in some particular field than is possible in the college of their first choice. Some of these have evidently been affected by the recently established honors courses in the College. Secondly, there are students who seek a new environment, agreeing with Professor Slosson that after a year or so in any one place one reaches the area of diminishing returns. With these men the metropolitan situation makes a strong appeal. It is evident that the almost superstitious adoration of the original *alma mater* is less marked west of the Alleghanies than east of them, and most of this second class come from state universities or western colleges. Finally, there are the men—and most of the transfers from eastern colleges are of this class—who look forward to professional study and who desire to take advantage of the professional option at Columbia. The class that leaves the original college for the good of that institution is conspicuous by its absence. In fact, a considerable proportion of the candidates for advanced standing fail of admission. That the students who are admittted form a vigorous and desirable element, quickly absorbed into the college life, is certain. The editor-in-chief of *Spectator* this year came to us from Dartmouth, and two of the four senior class officers entered Columbia College as sophomores.

The Students' Health

In the appointment of Dr. William H. McCastline as University Health and Sanitary Officer another important step has been taken in the provision for the welfare of the student community. It is an application to home conditions of the principle now put in the foreground of medical practice, that the true function of the physician is to render the physician unnecessary. In years past the health of students has often been seriously impaired because through lack of foresight or of means a physician has not been consulted at the proper time. Under the present arrangement, the services of a competent physician are constantly available and without fee. Moreover, the personal interest of Dr. McCastline in the students will cause them to seek him for friendly counsel.

With such provision for protecting the health of the students by prevention as well as by cure, the gain will be more than physical. The cause of poor scholarship often lies in poor health. Where this may be the case, the dean or the faculty adviser may suggest to a student that he consult the health officer of the University to determine whether some physical strain or weakened condition is not responsible for low marks. Further, "many a man carries on his morals what he ought to carry on his muscle"; and accurate and specific knowledge as to the proper care of the body will go a long way in maintaining a high morale.

In addition to his own services, Dr. McCastline plans to organize a consulting board of physicians and surgeons in New York City who will assist him in cases requiring the care of a specialist. A trained nurse has been secured for Barnard students, and arrangements have been made for hospital treatment whenever necessary. Taken in connection with the excellent work of this same nature already carried on at Teachers College by Dr. Thomas D. Wood, professor of physical education, the University may feel well assured that the health of its students is properly safeguarded.

THE PRESIDENT'S HOUSE

60, Morningside Drive

THE UNIVERSITY

The opening exercises of the 159th academic year were held in the gymnasium on Wednesday afternoon, September 25, 1912. In welcoming the students President Butler said:

Opening Exercises

When we assemble the University on each recurring Commencement Day, it is natural for us to look back at what has been accomplished in the year that has passed. When we assemble the University on the opening day of a new academic year, it is equally natural to look forward with hope and anticipation to the new paths that are opening out before us. To such a new year, the one hundred and fifty-ninth in the history of Columbia, I offer a cordial and a heartfelt welcome both to the scholars who teach and to the scholars who learn, to those who have returned to a place that is already familiar and beloved and to those who join us for the first time.

We shall at once start each upon his separate way, but we shall be animated throughout the year by a common purpose and by a common love and loyalty to the University which includes us all and which alone makes possible the rich and helpful opportunities that are offered to us.

Let us each resolve, during the academic year now opening, to strengthen and make firmer our hold upon something that really lasts, something that is worth while, something that is raised above the temporary turmoils and the vulgar self-seeking of the day. Let us close our ears, so far as possible, to the roar of malice, untruthfulness and slander that fills the air of this year of grace.

There is one word of counsel that I offer to each member of this University, whatever his field of study and whatever his chief intellectual occupation. Resolve to pass the year in company with some one high and noble character that has left a mark on the world and set a standard which is at once an invitation and an inspiration. Doubtless many such suggest themselves; but, to be concrete and specific, I will name some that occur to me as of particular significance and interest just now.

Let the year be made noteworthy, for example, by passing it in company with the poetry of Alfred Tennyson, a poet who will one day be even more highly appreciated than at present, not only for the sweetness of his song but for the scope and profundity of his thought. Do not read at the poetry of Tennyson, do not read about the poetry of Tennyson, but read the poetry of Tennyson itself. Commit to memory some of those passages which are at once a comfort and a delight to all intelligent persons.

Or, if in another mood, pass the year in close and familiar company with the Essays of Emerson. Learn from him the difference between gold and dross. Learn from him the secret of the perpetual movement of the spirit and the secret of the making of standards. Let him teach you how to think about things that matter. Go with him along the bypaths of reflection until you become familiar and in love with some of the most charming nooks and crannies into which real thought penetrates.

Or, again, if thirsting for the companionship of a life of action and of service, driven by the motive power of high purpose and a moral ideal, spend the year with that masterpiece of biography, Lord Morley's Life of Gladstone. In those volumes you may watch the growth of a powerful mind and a strong character through contact with great problems and large ideals. You may witness a course of education in public affairs through association with genuine problems, with real public interests, and with the highest conceptions of a nation's service.

A fourth suggestion occurs to me. The nineteenth century left no nobler or more inspiring life than that of Pasteur. Perhaps you may prefer to pass the year in company with that life as told by Vallery-Radot. The history of scientific inquiry contains nothing more full of suggestion and more abundant in conquest than the story of the life of this greatest of modern Frenchmen. From that story you may learn the real meaning of the words "scientific method." From that story you may learn the real meaning of the conception of science in the service of the public weal.

Whether you choose as your companion of this year the poetry of Tennyson, or the Essays of Emerson, or the Life of Gladstone, or the Life of Pasteur, you will have an association never to be forgotten. From this companionship you will gain a center point about which to organize your own personal academic studies. From it you will get a keystone for the arch that you are hoping to build. From it you will get a sense of achievement and of worth that will contribute powerfully to your intellectual and moral growth as a human being.

The annual academic address was delivered by Frederick J. E. Woodbridge, Johnsonian professor of philosophy and dean of the faculties of political science, philosophy, pure science and fine arts, upon "The discovery of the mind." The address is printed elsewhere in this issue. The benediction at the close of the exercises was conferred by the Right Reverend Lord Bishop of Winchester.

At the opening exercises held on the morning of the same day at the College of Physicians and Surgeons, Professor Theodore C. Janeway delivered an address on "The importance of the pathological theory of practical medicine." This address also is printed elsewhere in this issue.

The School of Journalism was formally opened on September 30 with exercises in Earl Hall. After Bishop Greer had led in prayer, President Butler spoke briefly of the circumstances of the School's founding and welcomed Dr. Talcott Williams as director. The President referred to the encouraging change from incredulity to enthusiasm on the part of observers and outlined the mission of the School in developing the highest standards of journalism. The address of Dr. Williams will be found among the leading articles of this issue.

* * *

Press Activities

The Columbia University Press, since the record of its new publications contained in the June QUARTERLY, has issued under its imprint no less than eleven new volumes. Eight of these belong to the various departmental series of the University; one is the first volume to appear of the important Studies in Cancer and Allied Subjects conducted under the George Crocker special research fund; another Professor Franz Boas's "Changes in bodily form of descendants of immigrants", originally issued as a report of the United States Immigration Commission; and the third "An official guide to Columbia University".

In the Studies in English and Comparative Literature three volumes have appeared in the new form adopted by the department: "Byron as a satirist in verse", by Claude M. Fuess; "Spenser's Shepherd's Calender in relation to contemporary affairs", by James J. Higginson; and "The commedia dell' arte. A study in Italian popular comedy", by Winifred Smith. The last named volume contains a number of illustrations.

In the Germanic Studies there are two new volumes: "The Göngu-Hrólfssaga. A study in Old Norse philology", by Jacob W. Hartmann; and "The history of the chorus in the German drama", by Elsie W. Helmrich.

In the Studies in Classical Philology a new volume is "Religious cults associated with the Amazons", by Florence M. Bennett. In the Indo-Iranian Series an important issue is "The Daśarūpa, a treatise on Hindu dramaturgy by Dhanaṃjaya. Now first translated from the Sanskrit, with the text and an introduction and notes", by George C. O. Haas. In the Oriental Studies a new volume is "The eight chapters of Maimonides on ethics (Shemonah perakim), a psychological and ethical treatise. Edited, annotated and translated, with an introduction", by Joseph I. Gorfinkle.

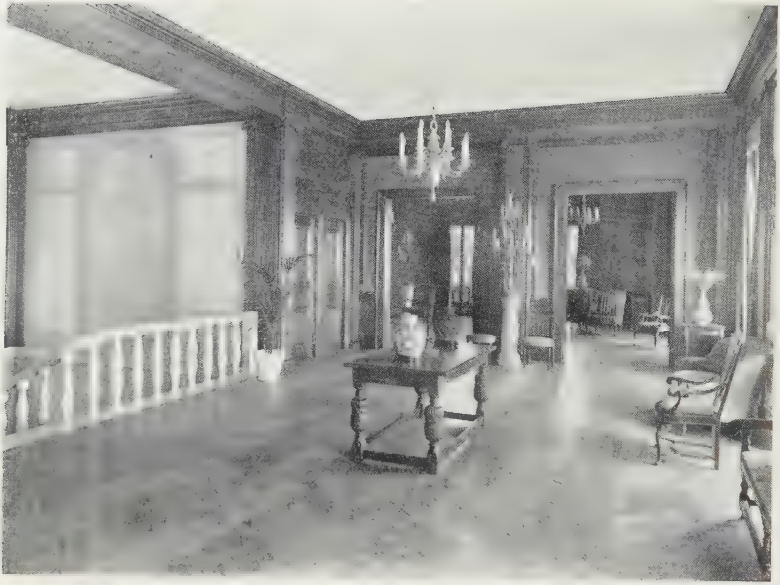
Professor Franz Boas's notable "Changes in bodily form of descendants of immigrants", under a liberal arrangement with the Government Printing Office, where it had been issued, as has been stated, as a report of the United States Immigration Commission, was furnished with a new title page containing the imprint of the Press and bound in conformity with other Press publications. It is intended by issuing the book in this way through the publishing medium of the University to give it, as it deserves, a wider currency than it would secure as a public document alone.

The Studies in Cancer and Allied Subjects, of which the first issue, "Pathology", has just appeared, is one of the most important and ambitious publishing propositions yet undertaken by the Press. The series of Studies is to consist of four volumes: Volume I. to contain "The study of experimental cancer. A review", by Wm. H. Woglom, M.D.; II. "Pathology"; III. "Studies from the departments of biology, surgery, biological chemistry and clinical pathology"; and IV. "Contributions to the anatomy and development of the salivary glands in the mammalia". The format of this series is a quarto with wide margins. The volume on "Pathology" contains 267 pages, together with 32 pages of plates and two charts. Its contents are twenty-seven separate papers by various investigators, the whole furnished with an introduction and a complete index. The remaining volumes of the Series are already in type and will be issued at an early date.

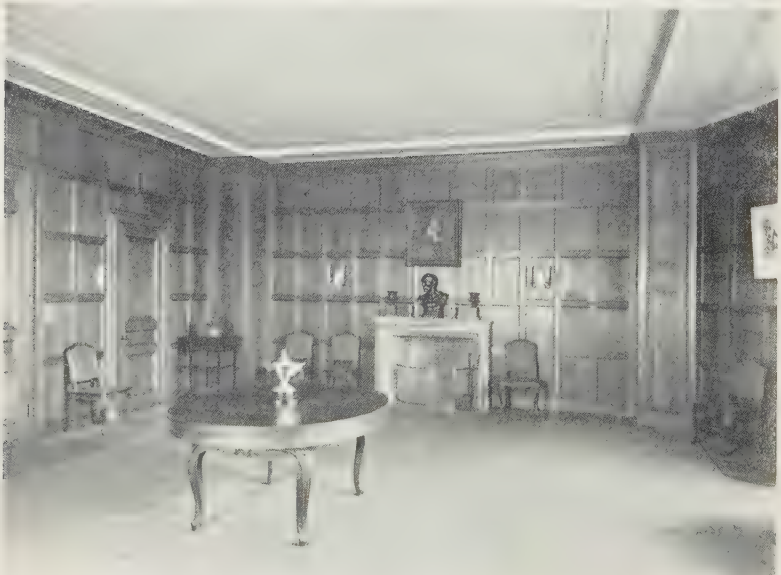
One of the most important of the recent publications of the Press for its general bearing is the little "Official guide to Columbia University". The book contains 130 pages of letter-press, numerous illustrations of the buildings and grounds, and maps showing the location of the University and the position of its various buildings. Its contents in detail are a short introduction by President Butler; a brief historical sketch of the University, with present statistics of the teaching staff and of student attendance; a complete description of the buildings of the University and what they contain, including Barnard College, Teachers College, the College of Physicians and Surgeons, and the College of Pharmacy; an account of Camp Columbia at Morris, Conn.; and lists and a directory of student and alumni organizations, the administrative officers of the University, and of fraternities. The book was prepared by an editorial committee of which Professor Brander Matthews was chairman. "It is their wish", to quote President Butler in his introduction, "to put into the hands of the new-comer and of the passer-by some account of the buildings, collections, memorials and art treasures of Columbia in order that these may be intelligently visited and usefully studied." The volume in this way should not only give a new and added interest to a visit to Columbia by the stranger who comes within our gates, but it should also be of

THE PRESIDENT'S HOUSE—THE DRAWING ROOM

THE PRESIDENT'S HOUSE—THE LIBRARY



THE PRESIDENT'S HOUSE—HALL: SECOND FLOOR



THE PRESIDENT'S HOUSE—THE DINING-ROOM

especial value to the students of the University who very often need precisely the general orientation that the Guide abundantly provides.

The following volumes are in the press at the present time and are intended for immediate issuance. Professor Carl Runge's "Graphical methods" contains the lectures delivered at the University by the author as Kaiser Wilhelm professor in 1909–1910. The book is to appear simultaneously in quarto format as a number of the series issued under the Ernest Kempton Adams research fund and in octavo as a volume of Columbia University Lectures to correspond to the other lectures previously published by the Press. Another volume of Columbia University Lectures is Sir Gilbert Murray's "Four stages of Greek religion" made up of lectures delivered at Columbia by the author in the spring of the current year. "Vāsavadattā. A Sanskrit romance" is a new volume in the Indo-Iranian Series by Louis N. Gray. "Tiglath Pileser III.", by Abraham S. Anspacher, is an additional volume in the Contributions to Oriental History and Philology.

* * *

Foreign Visitors

Quite contrary to custom, the campus did not take on its usual deserted appearance at the close of the summer session of 1912. The University was having as its guests the foreign delegates to several international meetings. Many of the European geographers, who were in this country as the guests of the American Geographical Society, were given accommodations in the residence halls during their stay in New York before starting on their long trip of inspection of the scenic wonders of the United States.

Somewhat later in August and in early September practically all the resources of the University were placed at the disposal of the Eighth International Congress of Applied Chemistry. Several thousand chemists, representing many foreign countries, attended the sessions of the Congress. Many of the foreign visitors were at the University from August 21 to September 12, inclusive, two hundred and eighty-one living in Hartley Hall and fifty-four in Brooks. For the accommodation of the Congress extensive preparations were necessary. The gymnasium was equipped for registration with booths, office counters and the like, to provide for the information bureau, where French, German, and Italian attendants were on duty, two railroad offices, a news-stand, a parcel-room, a telegraph office and a lost and found room. An independent telephone exchange was installed with eight different lines, six telephone booths and four automatic instruments. There were also three special lines with French, German, and Italian operators. Earl

Hall was equipped with complete typewriter service for the use of the delegates, at which there were French, German, and Italian, as well as English, workers. The University commons and lunch rooms were opened especially for the convenience of the delegates.

Altogether there were one hundred and forty-nine stated meetings held at the University, and, in order to provide for this schedule, it was necessary to put into service practically every University building, with the exception of Hamilton Hall.

Some idea of the cosmopolitan character of the Congress may be gained from the following list of countries represented:

Argentina
Australia
Austria
Belgium
Bulgaria
Canada
Chili
China
Colombia
Denmark
Ecuador
France
Germany
Great Britain
Greece
India
Ireland
Italy
Japan
Mexico
Netherlands
Norway
Persia
Portugal
Russia
Siam
South Africa
Sweden
Switzerland
Turkey
United States
Venezuela

The many letters of thanks and appreciation, which have been received from the University's guests, amply repaid the department of buildings and grounds for its labors in connection with the meetings.

On September 19 the University had the pleasure of an inspection by the two hundred German delegates to the Congress of Hygiene and Demography. The visitors were received in the Trustees' Room by President Butler, and, after short addresses, were shown about the campus by Professor Tombo.

* * *

Religious Interests

A close study of the religious conditions at Columbia has made evident the fact that the time is ripe for a more vigorous and constructive policy of religious education—an education which shall include all phases of the religious life, practical training, inspirational services, and thorough instruction. With this end in view there has been effected a closer relation between the Chapel and the Christian Association through organizing all the practical religious activities under a single committee.

This new committee is known as the Columbia University Committee on Religious Work, and will act in an advisory capacity to the Chaplain, and as a board of directors of the Christian Association. The following members have been appointed by the President: Rev. Duncan H. Browne, '05, *chairman,* William C. Demorest, '81, '83 L, William A.

Meikleham, '86, William Fellowes Morgan, '80, '84 S, Floyd Y. Keeler, '06, Frederick R. Hutton, '73, Frederic R. Coudert, '90, Frederick R. Coykendall, '95, '97 S, M. Hartley Dodge, '03, Theodore Tonnellé, '80, James A. Edwards, '00, '02 L, Thomas Ewing, '85, P. deP. Ricketts, '71, William Forster, '81, Dean Keppel, '98, Professor Dickinson S. Miller, Professor Hamlin, G. R. Stearns, Jr., '13, and James T. Kemp, '12.

Chaplain Knox delivered an address at the one hundred and eighth regular meeting of the Manhattan Congregational Ministers' Association on "Religious education in student life".

The Rt. Rev. William Boyd-Carpenter, D.D., Canon of Westminster, formerly Bishop of Ripon, was the University preacher on November 24.

* * *

Admissions September 1912

The number of new students registering in Columbia College in September, 1912, was 296, as compared with 241 in 1911. The freshman class numbered 193, as against 180 last year. 82 students entered higher classes, as against 49 last year, and 21 were admitted as non-matriculated students, as against 12 last year. Of the new students 98 came from other colleges, as against 66 last year. The new students came from 48 different colleges from all parts of the country. The students entering from other colleges are a picked body and they are among the very best who come to the College. They represent a wider range of territory than is represented by those who enter directly from the secondary schools.

The new students registering in the Schools of Mines, Engineering and Chemistry were 216, as against 203 in 1911. Of these 87 came from other colleges, 36 holding bachelor's degrees. This is an increase over last year and is very encouraging in view of the fact that in 1914 the new schedule goes into effect in the Schools of Mines, Engineering and Chemistry.

The new School of Journalism began with a registration of 72 students. This is a larger number than could have been expected in view of the late date at which the final plans for the School of Journalism were announced. It is encouraging to know that a considerable number of the new students are either college graduates or have had one or more years of college training.

* * *

At the June meeting of the Trustees the final stage in the organization of the bequest of Mr. George Crocker was consummated by the

The Director of Cancer Research

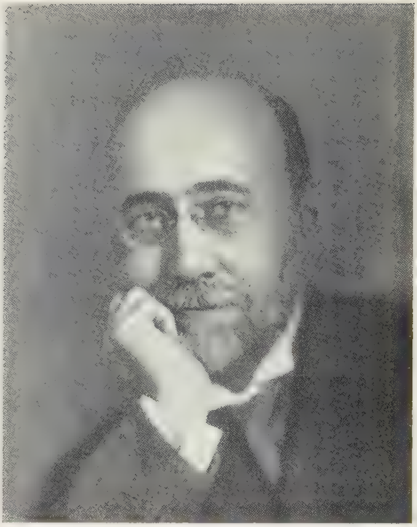
establishment of a board of managers to control the George Crocker special research fund. At the same time the Trustees appointed Professor Francis Carter Wood to be director of cancer research and the executive officer of the board of managers.

Professor Wood was born in Columbus, Ohio, in 1869, and was graduated from the Ohio State University with the degree of B.S. in 1891. He then entered the College of Physicians and Surgeons, graduating in 1894, and immediately thereafter began an interne service at St. Luke's Hospital. On the completion of his hospital residence, Dr. Wood spent some time in Europe, studying along the lines of scientific medicine, and on his return in the fall of 1897 he was invited by Professor T. Mitchell Prudden to become a member of the staff of the department of pathology in the College of Physicians and Surgeons. At about the same time, also, he was made pathologist to St. Luke's Hospital. Since then Professor Wood has been engaged continuously in teaching and hospital work. In 1899 he was advanced to fill the vacancy caused by the resignation of Dr. James Ewing as instructor in clinical pathology, and on the reorganization of the composite department of pathology he was made the head of the newly formed department of clinical pathology. A somewhat similar expansion has occurred at St. Luke's, to which a fund for medical investigation was recently left. This has enabled the hospital to undertake research work not ordinarily possible, and in order to further such opportunities, Dr. Wood has also been made an attending physician to the hospital, so that he has control of patients for scientific study. As the funds become further available, this department promises to be an important adjunct to the work of the Crocker Fund, for it will enable any therapeutic measures which may be discovered by the investigators in the cancer field to be tried out without delay. Unfortunately, the actual work of the Crocker Fund is somewhat hampered at present by the lack of working space, and it will be necessary in the near future to obtain a building in order to permit the proper use of the funds. General plans for the organization are, however, now well under way, and within a year or two should be fully operative. Professor Wood in addition to his other duties has acted as pathologist to the German Hospital, as consulting pathologist to the Vassar Brothers' Hospital of Poughkeepsie, and as a member of the advisory board of the Health Officer of the Port of New York. He has published many articles on medical topics, and is the author of a widely used text on chemical and microscopical diagnosis.

see p. 76

FRANCIS CARTER WOOD

Director of Cancer Research



see p. 77

PAUL SHOREY

Theodore Roosevelt Professor 1913–14

see p. 78

DAVID S. MUZZEY

Associate Professor of History

see p. 84

FRANKLIN MATTHEWS

Associate Professor of Journalism

Theodore Roosevelt Professor 1913-14

Paul Shorey, who was recently appointed Theodore Roosevelt professor for the year 1913–14, was born at Davenport, Iowa, in 1857. He received the degree of A.B. from Harvard University in 1878, and, after studying law and being admitted to the bar in Chicago, spent several semesters at German universities, being at Leipzig in 1881–82 and at Bonn in 1882. In 1882–83 he attended the American School of Classical Studies at Athens, and in 1884 he received the degree of doctor of philosophy from the University of Munich. Iowa College conferred the degree of doctor of laws upon him in 1905 and the University of Wisconsin the degree of doctor of letters in 1911. From 1885–92 Dr. Shorey served as professor of Greek at Bryn Mawr College, and since 1892 he has served in the same capacity at the University of Chicago, being appointed head of the department in 1896. In 1901–2 he was annual associate director of the American School of Classical Studies at Athens, and has been managing editor of *Classical Philology* since 1908. In 1910 he served as president of the American Philological Association. He is the author of "De Platonis idearum doctrina", "The idea of good in Plato's Republic", "The odes and epodes of Horace", "The unity of Plato's thought". In addition he has contributed a number of articles on educational, philological, and literary subjects to various magazines, and has reviewed a large number of books. During the past two years Professor Shorey has given courses of lectures on Greek and English poetry at the University of Pennsylvania and on the history of Platonism at Columbia University, and delivered the Lane classical lectures at Harvard University and the Turnbull lectures on poetry at the Johns Hopkins University.

During his incumbency of the Roosevelt professorship at the University of Berlin Professor Shorey will offer a lecture course on "Democracy and culture in America" and hold a seminar on Plato.

* * *

The Visiting French Professor

Henri Bergson was born in 1859. After studying at the *Lycée Condorcet,* he entered the *Ecole Normale Supérieure* in 1878 and was graduated in 1881, becoming a doctor of letters in 1889. He was professor of philosophy, successively, at Angers, at Clermont, and then at the *Collège Rollin* and the *Lycée Henri IV.* in Paris. In 1900 he became professor at the *Collège de France,* which position he now holds. In 1901 he was chosen a member of the Academy of Moral and Political Sciences. He is one of the greatest intellectual forces in the world today. It is due to his personality and philosophic insight that a check has been called on the widespread movement toward mechanistic philosophy which has been going forward now for nearly forty years. Professor Bergson is acknowledged to be the most prominent philosophical teacher of this generation. His books are read everywhere and have been translated into half a dozen languages. He has just completed a series of lectures at the University of Oxford and one at the University of London, which are acclaimed as marking a real event in the intellectual history of those two institutions. He has been named by the University of Paris as the visiting professor at Columbia in 1913. Professor Bergson is to arrive in New York the latter part of January and to remain at the University about three weeks. He plans to give two public lectures weekly in French, and to hold two private conferences or seminar exercises weekly in English.

* * *

Associate Professor of History

David S. Muzzey, who was appointed associate professor at the March meeting of the trustees, was born at Lexington, Mass., in 1870. He graduated from Harvard University with the degree of A.B., having entered with the class of 1893 from the Boston Latin School. He taught mathematics at Robert College, Constantinople, in 1893–4, and studied at the Union Theological Seminary in 1894–7, specializing in church history. In 1897 he won the history prize for an essay on the Augustinianism of Gregory the Great, and in the same year received the degree of B.D. from New York University. In 1897–8 he was fellow of the Seminary in Berlin, and in 1898–9 fellow in Paris, studying church history with Harnack and Bonnet Maury, respectively. From 1899 to 1905 he was teacher of classics and history in the Ethical Culture School in New York, and was head of the history department of this school from 1905 to 1912, being an assistant leader in the Society for Ethical Culture. He received the degree of Ph.D. from Columbia University in 1907. Professor Muzzey has published "The rise of the New Testament", "Spiritual heroes", "A beginner's book in Latin", "The spiritual Franciscans", and "An American history".

* * *

Associate Professor of Surgery

Adrian V. Lambert, who was appointed associate professor of surgery at the April meeting of the trustees, was born in New York City in 1872. He received his early education at a private school in New York City, and graduated from Yale University with the degree of A.B. in 1893. He then entered the College of Physicians and Surgeons and received the degree of M.D. in 1896. From 1896 to 1899 he was on the medical staff of the New York Hospital as interne, and in the following year he served in the same capacity on the surgical staff. In 1899–1900 he studied in Vienna and Berlin, and upon his return to America served as demonstrator in anatomy at the Columbia medical school from 1900 to 1905, and as instructor in surgery from 1905 to 1912. During the last mentioned period he was also assistant attending surgeon at Bellevue Hospital, and from 1910 to 1912 he served in the same capacity at the Roosevelt Hospital. He was chief of the Vanderbilt Clinic from 1908 to 1910 and attending surgeon of the Lincoln Hospital from 1907 to 1910.

* * *

University Representatives

The University was represented at the opening of the Rice Institute, Houston, Texas, October 10, 11 and 12, and at the inauguration of President Brooks of the University of Oklahoma, October 21, by Provost Carpenter; at the meeting of the Association of American Universities, November 7 to 9, by Provost Carpenter, and Deans Woodbridge and Russell; at the inauguration of Miss Wooley as president of Mount Holyoke College, October 9, by Dean Gildersleeve; at the meeting of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, November 29 and 30, by Deans Keppel and Russell, Provost Carpenter and Professors Fiske and Jones; at the inauguration of President Meiklejohn of Amherst College, October 16, by Deans Woodbridge and Stone; at the inauguration of President Tipple as president of Drew Theological Seminary, October 24, by Professor Frame of the Union Theological Seminary; and at the inauguration of President Keyes of the Skidmore School of Arts, October 26, by Professor Dow, Dr. Keyes, and Mr. Barrett.

* * *

The President's Reception

When, in the autumn of 1902, President Butler arranged for a reception to the professors newly appointed that year, none of those who stood stiffly about in an ill-adapted room could have foreseen what was to happen ten years later. The change of habitat, from the arid wastes of the Earl Hall auditorium to the beautiful receiving rooms of the President's house, is in itself a miracle, but even a greater miracle is the change from an academic community, where, in spite of considerable skill in disguising the fact, the members knew little or nothing of one another, to a real

University family. The reception strongly emphasized the successful realization of the purpose of the trustees to make the President's home an intrinsic part of the intimate University life.

The newly appointed professors are the following: Professors—Henri Bergson, Litt.D., visiting French professor; John W. Cunliffe, D.Lit., English, associate director of the School of Journalism; Felix Krueger, Ph.D., Kaiser Wilhelm professor; Austin W. Lord, director of the School of Architecture; Talcott Williams, LL.D., journalism, director of the School of Journalism. Associate professors—Wendell T. Bush, Ph.D., philosophy; Douglas W. Johnson, Ph.D., physiography; Adrian Van Sinderen Lambert, M.D., surgery; Robert E. MacAlarney, A.B., journalism; David S. Muzzey, Ph.D., history; Walter B. Pitkin, A.B., philosophy. Assistant professors—Thomas H. Harrington, C.E., drawing; Frederick W. J. Heuser, A.M., Germanic languages; Gertrude M. Hirst, Ph.D., classical philology; Paul Edward Howe, Ph.D., biological chemistry; Cecil F. Lavell, Ph.D., history of education; Ida H. Ogilvie, Ph.D., geology; Reginald J. S. Pigott, Mech.E., steam engineering; Edward M. Sait, Ph.D., politics; Lewis P. Siceloff, Ph.D., mathematics; Charles C. Sleffel, industrial arts; Romiett Stevens, Ph.D., secondary education; Charles W. Weick, B.S., industrial arts.

* * *

Arnold Bennett on Columbia

In the October *Harper's* Arnold Bennett, writing on "Your United States", reveals personal impressions of higher education in America gained from visits to Harvard and Columbia. Of Columbia he says:

> It was an exciting day for me when I paid a call next door to Horace Mann and visited Columbia University. For this was my first visit of inspection to any university of any kind, either in the New World or in the Old. As for an English university education, destiny had deprived me of its advantages and of its perils. I could not haughtily compare Columbia with Oxford or Cambridge, because I had never set foot even in their towns. I had no standards whatever of comparison.
>
> I arose and went out to lunch on that morning, and left the lunch before anybody else and rushed in an automobile to Columbia; but football had already begun for the day in the campus costing two million dollars, and classes were over. I saw five or more universities while I was in America, but I was not clever enough to catch one of them in the act of instruction. What I did see was the formidable and magnificent machine, the apparatus of learning, supine in repose.
>
> And if the spectacle was no more than a promise, it was a very dazzling promise. No European with any imagination could regard Columbia as other than a miracle. Nearly the whole of the gigantic

affair appeared to have been brought into being, physically, in less than twenty years. Building after building, device after device, was dated subsequent to 1893. And to my mind that was just the point of the gigantic affair. Universities in Europe are so old. And there are universities in America which are venerable. A graduate of the most venerable of them told me that Columbia was not "really" a university. Well, it did seem unreal, though not in his sense; it seemed magic. The graduate in question told me that a university could not be created by a stroke of the wand. And yet there staring me in the face was the evidence that a university not merely could be created by a stroke of the wand, but had been. (I am aware of Columbia's theoretic age and of her insistence on it.) The wand is a modern invention; to deny its effectice creative faculty is absurd.

Of course I know what the graduate meant. I myself, though I had not seen Oxford nor Cambridge, was in truth comparing Columbia with my dream of Oxford and Cambridge, to her disadvantage. I was capable of saying to myself: "All this is terribly new. All this lacks tradition." Criticism fatuous and mischievous, if human! It would be as sapient to imprison the entire youth of a country until it had ceased to commit the offense of being young. Tradition was assuredly not apparent in the atmosphere of Columbia. Moreover, some of her architecture was ugly. On the other hand, some of it was beautiful to the point of nobility. The library, for instance: a building in which no university and no age could feel anything but pride. And far more important than stone or marble was the passionate affection for Columbia which I observed in certain of her sons who had nevertheless known other universities. A passionate affection also perhaps brought into being since 1893, but not to be surpassed in honest fervency and loyalty by influences more venerable!

Columbia was full of piquancies for me. It delighted me that the Dean of Science was also consulting engineer to the university. That was characteristic and fine. And how splendidly unlike Oxford! I liked the complete life-sized railroad locomotive in the engineering shops; and the Greek custom in the baths; and the students' notion of coziness in the private dens full of shelves, photographs, and disguised beds; and the visibility of the president; and his pronounced views as to the respective merits of New York newspapers; and the eagerness of a young professor of literature in the Faculty Club to defend against my attacks English Professor A. C. Bradley. I do believe that I even liked the singular sight of a Chinaman tabulating from the world's press, in the modern-history library, a history of the world day by day. I can hardly conceive a wilder, more fearfully difficult way of trying to acquire the historical sense than this voyaging through hot, fresh newspapers, nor one more probably destined to failure (I should have liked to see some of the two-monthly *résumés* which students in this course are obliged to write); but I liked the enterprise and the originality and the daring of the idea; I liked its disdain of tradition. And, after all, is it weirder than the common traditional method!

To the casual visitor, such as myself, unused either to universities or to the vastness of the American scale, Columbia could be little save an enormous and overwhelming incoherence. It so chiefly remains in my mind. But the ingenuous humanity running through the whole conception of it was touching and memorable. And although I came away from my visit still perfectly innocent of any broad theory as to ultimate educational values in America, I came away also with a deeper and more reassuring conviction that America was intensely interested in education, and that all that America had to do in order to arrive at real national, racial results was to keep on being intensely interested. When America shall have so far outclassed Europe as to be able to abolish, in university examinations, what New York picturesquely calls "the gumshoe squad" (of course now much more brilliantly organized in America than in Europe), then we shall begin to think that, under the stroke of the wand, at least one real national, racial result has been attained.

* * *

Committee on Employment

Despite what the economists have been pleased to call a year of business "irresolution," the twelvemonth just concluded has been, in many respects, the most successful and most gratifying that the Committee has yet enjoyed. There have been appreciable gains all along the line, and while the total earnings have increased, the individual and average earnings have diminished in many cases. This fact indicates that the Committee is becoming of greater service to the many, which is in direct antithesis to conditions as they have been. The falling off in the totals for the year 1910–11 was followed by sharp recovery to conditions which, in some respects, are better than normal. In the total earnings for the past year the increase has been nearly twenty thousand dollars, the relative earnings being, in 1910–11, $75,709.45, and in 1911–12, $95,053.53. In earnings both with and without the aid of the Committee there was a healthy advance, but most encouraging was the fact that, while the earnings made without the Committee's assistance gained comparatively only 18 per cent., the earnings directly traceable to the aid given by the Committee increased at the rate of 46 per cent., and the earnings made with the Committee's help were approximately 40 per cent. of the whole, while in 1910–11 the Committee earnings were less than 32 per cent. of the total. With the Committee's help the students in 1911–12 earned $35,419.56, independently $59,615.97; in 1910–11 the corresponding amounts were $24,861.02 and $50,848.43.

The number of students who applied to the Committee for aid during the year was 563. At no one time, however, were there this many applicants on the lists, because for one reason or another 106 were dropped or withdrawn, leaving a total of only 457 actively on the books in the closing days of the fiscal year. As a result of keeping in close touch with the students, reports were obtained from 404, which is almost twice as many as have been obtained in any other year. In the summer of 1911 report blanks were mailed to more than 800 students, but because of inaccuracies in the mailing lists and the presence of much "deadwood," which has since been eliminated, replies were obtained from only 133. In this connection it should be noted that only such students as were actually registered with the Committee were asked to report their earnings. In the number of positions obtained and filled, the year showed an unprecedented increase. Exactly eight hundred individual employers approached the Committee, offering a total of 1,496 positions. It might be well to explain here that the term position is used to indicate the placing of an individual student in a particular job, whether it be of a few hours' duration only, or whether it be of more or less permanency through the year. Last year the number of positions filled by the Committee was 909.

The fund which was placed at the disposal of the Committee two years ago for advertising purposes was used, to some extent, in the efforts to obtain new opportunities for student employment. On the surface the results have not been as encouraging as one would naturally expect them to be, largely because there seem to be no mediums, outside of certain trade journals, which reach those who have employment to offer of the kind that can be taken care of by students. It seems that the extensive use of circular-letters affords the best means of obtaining the publicity required for the furtherance of the work of the Committee. Calls for tutors, teachers, and companions were the most numerous.

* * *

Journalism and Public Life

The following series of public lectures on journalism and public life is being delivered under the auspices of the School of Journalism: September 30, The aims and tendencies of the school of journalism, Dr. Talcott Williams, director of the School; October 7, The purpose of the Pulitzer bequest, Mr. John Langdon Heaton of the *New York World;* October 14, The equipment of an editorial writer, Mr. Charles R. Miller of the *New York Times;* October 21, How a news bureau covers a city, Mr. J. E. Hardenbergh, secretary-manager New York City News Association; October 28, The newspaper and the magazine, Mr. George Buchanan of the Associated Sunday Magazines; November 4, The magazine and its responsibilities, Mr. Robert Underwood Johnson of the *Century*

Magazine; November 11, The editorial writer's opportunity, Mr. Arthur Brisbane of the *New York Journal;* November 18, Writing for the press, Mr. Rollo Ogden of the *New York Evening Post;* November 25, The newspaper of today, Mr. Chester S. Lord of the *New York Sun;* December 2, The newspaper value of non-essentials, Mr. Edward P. Mitchell of the *New York Sun;* December 9, The presentation of news, Mr. Carr V. Van Anda of the *New York Times;* December 16, Accuracy in journalism, Mr. Ralph Pulitzer of the *New York World;* January 6, 1913, The truth in the news, Miss Ida M. Tarbell of the *American Magazine;* January 13, Newspaper power and how to direct it, Mr. George S. Johns of the *St. Louis Post-Dispatch;* January 20, Art and conscience in newspaper making, Mr. Samuel Bowles of the *Springfield Republican.*

* * *

Associate Professor of Journalism

Franklin Matthews, appointed associate professor of journalism in October, graduated from Cornell University with the degree of A.B. in 1883, but remained at that institution for a year of post-graduate work. Three years ago he was elected president of the general alumni of Cornell, and was reelected the following year. After leaving Cornell Mr. Matthews was employed for two years by the James B. Pond Lyceum Bureau. Through this work he became well acquainted with the Rev. Henry Ward Beecher, with whom he made many lecture trips; with Mark Twain, George W. Cable, Carl Schurz, and other platform leaders. He also made a trip with Clara Louise Kellogg and her concert company. Marrying Miss Kellogg's cousin, Mary E. Crosby of New Haven, Mr. Matthews in 1886 went to Philadelphia, where he worked for four years as a reporter, copy reader, correspondent and assistant city editor of the *Philadelphia Press.* In 1890 Mr. Matthews came to New York and secured a place as copy reader on *The World.* Two months later an increase of *The Sun's* copy desk made an opening on that newspaper and Mr. Matthews was chosen to fill it. He remained on *The Sun* until July 1 last, when he accepted an appointment as assistant Sunday editor of *The New York Times.*

Mr. Matthews has traveled extensively. In the late nineties he made several extended trips as a correspondent for *Harper's Weekly.* One was to Cuba, just as the Spanish War closed, to report the condition of affairs there. Previous to that he wrote a long series of papers for the *Weekly* on "Bright skies in the west". These papers related to the return of prosperity in the western states. Mr. Matthews went to the front in the Russo-Japanese war shortly after the battle of Mukden to assist Dr. L. L. Seaman of this city in gathering material for Dr. Seaman's book on the medical side of that war. Later he was chosen by *The Sun* to accompany the Atlantic Fleet on its cruise around the world as correspondent, and was one of the two civilians who made the entire trip. His letters from the fleet attracted wide attention at the time. On *The Sun* Mr. Matthews for fifteen years was the general telegraph editor. His health having been impaired, he gave up that confining work and after his return from the Russo-Japanese war did general reporting for two years. After his return from the cruise around the world he became a general utility man on *The Sun* filling all the news desks, practically, except that of managing editor.

Mr. Matthews has contributed at various times to the leading monthlies and weeklies. He has also written several books: "Our navy in time of war"; "The new-born Cuba"; "With the Atlantic Fleet"; and "Back to Hampton Roads". He also compiled "Casual essays from *The Sun*", a selected list of noteworthy editorial articles of twenty-five years from *The Sun*.

* * *

Columbia and the Regents

No better statement can be made of the feeling of the University toward the State Department of Education than the formal word of greeting, which President Butler presented in behalf of the Corporation at the time of the dedication of the Education Building at Albany, October 15–17:

> Columbia University, whose origins are a generation earlier than the organization of the State of New York itself and which has from the very beginning cooperated effectively and with sympathy in the development of the unified educational system for the State, offers respectful greetings to the Regents of the University of the State of New York, to the Commissioner of Education and to his associates upon the happy completion of this great building which is to stand henceforth as convincing and material evidence of the care which the people of the State have for the things of the mind.

The official delegates of the University on this occasion were President Butler, Deans Woodbridge, Keppel, Stone, Lambert, Goetze, Gildersleeve, Russell, and Rusby, James C. Egbert, director of the summer session and of extension teaching, Talcott Williams, director of the School of Journalism, Austin W. Lord, director of the School of Architecture, Provost Carpenter, and Librarian Johnston.

* * *

The inaugural lecture of Felix Krueger, Ph.D., Kaiser Wilhelm professor for the year 1912–13, was delivered on October 29, 1912, Professor Krueger taking as his subject "New aims and tendencies in psychology". The lecture, which attracted a large audience, was followed by a reception tendered to Professor and Mrs. Krueger at the Deutsches Haus by the Germanistic Society of America, of which Provost W. H. Carpenter is president.

Inaugural Lectures of Exchange Professors

William M. Sloane, Ph.D., LL.D., Theodore Roosevelt professor at the University of Berlin, delivered his opening lecture on October 31, 1912, in the *Aula* of the university to a brilliant audience, which included the Emperor and Empress. Professor Sloane spoke on "American political parties."

* * *

Miscellaneous Notes

A lecture on "The independence of Latin America and its evolution in the nineteenth century" was delivered by Mr. Oliveira Lima, Brazilian minister to Belgium, on October 30, 1912, under the auspices of the faculty of political science.

Professor William D. Guthrie of the Law School delivered an address as temporary chairman of the Republican State Convention at Saratoga Springs, New York, September 25, 1912, entitled "The duty of citizenship in 1912".

At the American Road Congress held in Washington, September 30–October 5, Professor Burr delivered an address on "Highway bridges". Professor Blanchard spoke on "The construction of surfaces with bituminous materials.

Herman LeRoy Fairchild, Sc.D., professor of geology in the University of Rochester, delivered a lecture on "Glacial geology of New York State" on November 12.

THE LIBRARY

The University Library has received the following gifts: Correspondence of Nathaniel Parker Willis and George J. Pumpelly, 1829, presented by the son of the latter, Mr. J. C. Pumpelly, twenty-seven pieces; the law library of Robert Bayard Campbell of the class of 1844, bequeathed by his sister, Miss Maria L. Campbell, 1489 volumes; and the library of John Ericsson, presented by his literary executor and biographer, Mr. William Conant Church, one hundred and twenty volumes.

Interlibrary loans between the circulation department of the New York Public Library and the University have been arranged in the interest of officers and graduate students.

The following appointments to the several departments of the Library became effective on July first: Felicien Vexler, A.M. Columbia University 1909, formerly assistant cataloguer, assistant in charge of the School of Philosophy; Roger Howson, A.B. Cambridge University, assistant in charge of the School of Political Science; Vera M. Dixon, B.S. Iowa State College 1908, assistant in charge of the Applied Science library; Isabelle McCarthy, assistant in charge of the Periodical Reading Room.

A series of illustrated lectures on the Library service of the University has been given by members of the Library staff as follows: October 18, "Libraries of New York City and their use," by the librarian of the University; October 21, "Why we have a university library," by the assistant librarian; October 23, "Keys to the resources of the Library," by the reference librarian.

The assistant librarian, Mr. F. C. Hicks, has been elected president of the New York Library Club for the ensuing year, and Miss I. G. Mudge, reference librarian, has been elected secretary.

SCHOOL OF ARCHITECTURE.

On July 1 the administrative control of the School of Architecture passed from the hands of Professor Hamlin into those of Professor Austin W. Lord, of the well-known firm of Lord, Hewlett and Tallant, elected by the Trustees professor of architecture and director of the School at their meeting in May. A brief notice of Professor Lord's appointment and history was published in the University notes in the September issue of the QUARTERLY.

This transfer of authority accompanying the creation of a new professorship in architecture was made pursuant to representations contained in a communication sent to the President in the spring jointly by Professors Hamlin and Sherman, urging that the approaching transfer of the School to new and better quarters be signalized by the creation of a new professorship of design, with a view to entrusting its incumbent with such administrative duties as he might be willing to assume, in order to relieve Professor Hamlin of an increasing burden of routine administrative drudgery and permit him to devote himself more fully and freely to his chosen field of the study and teaching of the history of architecture and ornament. The name of Professor Lord was one of those suggested by Professor Hamlin to the President for this important post; and the new appointee having signified his readiness to assume the full charge of the School, he was appointed director of the School of Architecture.

In conformity to the views of Professor Lord, a number of changes of detail have been made in the curriculum, as set forth in the new announcement. These consist chiefly in reductions of the prescribed classroom courses and an increase in the amount of design required and of hours available therefor. The courses in French and German reading have been abolished; greater freedom of election is allowed in the historical courses, and the number of hours devoted to the study of construction and building materials has been somewhat reduced. A course in civic planning has been added under the charge of Mr. George B. Ford. In view of the ample drafting accommodations provided by the new Avery Hall, there seemed to be no further necessity for maintaining the two down-town "ateliers," and these were therefore given up. Arrangements were also made for the students of the School to take the problems of the Society of Beaux-Arts Architects as the chief part of their work in design. Although these changes had to be made during the short period of the summer vacation, and a new announcement prepared and printed, they have all been carried into effect with a minimum of friction. The School has opened with a registration of 135, about the same as that of last year. The number of new students (fifty-five) is in excess of the new enrolment of a year ago; of these there is a greatly increased percentage of candidates for the bachelor's degree, who have had from two to four years of college study before entering this School, and a corresponding decrease in the number of candidates for the professional certificate, and of non-matriculated students. A number of women are in attendance on the various classes.

The graduation of thirteen students marked the termination of Professor Hamlin's nine years of administrative headship of the School. Appointed acting executive head in 1903, on the retirement of Professor Ware, and executive head the following year, Professor Hamlin has seen the School grow under his hands from a registration of 75 in 1904 to 163 in 1910, with a notable though not proportionate increase in the staff. The degree of bachelor of architecture with its requirement of previous college preparation was established under his administration, with the certificate course for those unable to obtain such preparation; the atelier-system was introduced, and the entire teaching of design modernized and improved; the "educational lockstep," inseparable from a rigid four-years' course with year-by-year classes, was abolished, and the point-system introduced; while the requirements for admission were raised, the teaching of drawing reorganized, and life-drawing made a prescribed requirement for graduation. In the new building and under the energetic and efficient direction of Professor Lord, the alumni and friends of the School may expect to see it develop to a still higher point of efficiency and prosperity.

Mr. F. A. Nelson, associate in architecture, who was dangerously ill during the summer, and Messrs. Lucian E. Smith and Albert E. Flanagan, lecturers in architecture, having resigned, Mr. Arthur Ware, of James E. Ware and Sons, architects, has been appointed associate, to have charge with Mr. Prévôt of the drafting rooms, and Mr. J. V. VanPelt has been assigned to the work with the elementary students formerly conducted by Mr. Flanagan. The other vacancies have not been filled, owing to the consolidation of three ateliers into one. Mr. R. F. Bach having been relieved of the greater part of his duties of instruction, by the abolition of the courses in French and German, is serving in the capacity of deputy-registrar, taking upon himself a vast amount of routine administrative detail in behalf of Professor Lord, much of which formerly rested on Professor Hamlin's shoulders. No official title has at this writing been bestowed upon this important office, which the School has long needed, and which Mr. Bach is filling with great skill and devotion.

On the twenty-second of October the Alumni Association of the School of Architecture held a reunion and meeting in Avery Hall, followed by a beefsteak supper. The new quarters of the School and the Avery Library were inspected, and the evening exercises took on in part the form of a reception to the new director.

TEACHERS COLLEGE

The present registration in Teachers College shows a considerable increase in attendance over that of last year. The gain in graduate students, of whom three hundred and four are registered in advanced courses in education, is over ten per cent. in advance of the number registered at the opening of the past academic year.

Two new courses in Bible study are offered during the academic year by Professor Bewer of the Union Theological Seminary. The religion of the Old Testament will be treated in the first half-year, the religion of the New Testament during the second half-year.

In the early summer Miss Moore and Professors Hillegas and Kilpatrick spent several weeks in Italy studying the Montessori system of education in its actual operation.

The department of fine arts took part in the Fourth International Congress of Art Teachers at Dresden during the past summer with an exhibit of the work of the Department in design, composition, drawing, color theory and painting, together with a set of photographs illustrating the course of study and its applications in teaching hand-work, designing, clay modeling, pottery, metal and enamel, house decoration, costume design, bookbinding and photography.

Professor Dodge accompanied the transcontinental excursion of the American Geographical Society through the United States and studied the physiography and geography of a large section of the country. The party included forty-three foreign geographers from thirteen European countries.

At the International Congress of Mathematicians held at Cambridge, England, during the past summer Professor David Eugene Smith was made a member of the Committee of the International Commission of the Teaching of Mathematics to serve for the next four years with Professors Klein, Greenhill and Fehr. During the summer, also, the work of the American commissioners of the International Commission under the chairmanship of Professor Smith completed the publication of the American reports and issued their general report. A large number of historical works on mathematics have been added to the already notable library on this subject in the department of mathematics. The Department is undertaking this year, through the Horace Mann School, the conduct of a new class in vocational mathematics. The class is composed of pupils of the eighth grade, and the work is intended to lay a foundation for greater interest and more thorough work in the ordinary high-school course. The College has added to the equipment of the department of mathematics a considerable number of instruments for the teaching of mensuration in the field. These will be used in the new course in applied mathematics and in the experimental work in the Horace Mann School.

The Educational Museum has shown this fall an extensive exhibit illustrating the growth and present status of education in China, including material illustrating industrial work, drawing, arithmetic, composition and penmanship in both English and Chinese, and clay modeling. An important feature is a large collection of text-books, showing both the ancient and the modern methods of instruction, and a valuable set of photographs of buildings, classes, and other features of school life.

School of Practical Arts

In our March issue we reviewed the organization of the new School of Practical Arts—a new type of college education in our University system, uniting academic training with thorough technical training in many vocations not covered by the existing professional schools of the University. The new School has now entered on its first year of work with manifest evidence of public appreciation. The enrollment of 212 candidates for the bachelor of science degree, of whom 150 now constitute its freshman class—the maximum number for whom provision was made—promises that when, four years from now, the first class is graduated, the School will have an attendance of six hundred full-time college students, and a subsequent development limited only by the facilities that Teachers College can afford. Of the students approximately one-third come from New York City, one-third come from New York State and New Jersey, while the remaining third are from twenty-one other states and countries, including Canada and Porto Rico. They have come from approved secondary schools, and are specially recommended by the school authorities as "possessed of the qualities of character, scholarship, and purpose required for successful work in the School of Practical Arts." They have entered, well-prepared, free from conditions, and the first impressions of the instructors unanimously record the earnestness, ability, and promise of the new student body. They have been admitted, it is worth noting, in almost every case on a certification plan, carefully devised to select the kind of student able to profit by the type of education offered. No other system of admission would have worked adequately to secure the new type of student needed. The result seems to attest afresh the value of the certification system when wisely and carefully administered.

The registration in the new School is predominantly a registration of women, so that the School of Practical Arts, though not so restricted, seems to be in the main a school of technology for women. The total registration of students having their majors in the School shows 9 men and 203 women. It is true that the prospective teachers of household arts, industrial arts, fine arts, music, physical education, whose majors are rated in the School of Education but whose technical work is done in the School of Practical Arts, change that proportion slightly; there are of these 75 men and 542 women; but the color remains the same, though there is a difference of shade. The reason for this lies in the present situation of the training for vocations. Teaching is the predominant vocation of the students of Teachers College, and the field of the School most in touch with this vocation is the household arts, where women prevail.

In the long run the disproportion will be, we believe, less marked. The development of industrial education in the United States has already greatly increased the attendance of men in the industrial arts courses of the School (68 majors this year as against 53 last year), and that increase will continue. Again, the art industries, indeed all industries of this country, are calling for specially trained men in callings not supplied by schools of architecture and engineering. In Europe, following the example of the South Kensington Museum School (1852), every great city has developed higher schools of applied arts—for example, the *Scuole d'arte applicata* of Rome, Venice or Milan, the *Kunstgewerbeschulen* of Zurich, Munich, Dresden, Berlin, the *Arts and Crafts Schools* of London. The School of Practical Arts incorporates as part of its work, both in its day and its evening courses, the nucleus and beginnings of what may become a school of applied art, bearing the same relation to the art industries in this country as the schools of architecture and engineering do to the callings to which they are allied.

DEPARTMENT OF ASTRONOMY

Professor S. A. Mitchell is absent on leave for the entire academic year 1912–13; he is at the Yerkes observatory. During the summer he was replaced in the summer school of geodesy at Camp Columbia by Mr. William Bowie, chief inspector of field work, U. S. Coast and Geodetic Survey. Taking advantage of Mr. Bowie's presence in camp, it has been possible to bring our geodetic work into still closer accord with the best modern practice; and at the suggestion of Professor Jacoby, Mr. Bowie also carried out a primary longitude determination at camp. Through the courtesy of the Western Union Telegraph Company, a special double wire was run into camp from Bantam, and was thence connected directly through existing circuits with the U. S. Naval Observatory at Washington. Signals were exchanged on four nights with the naval authorities at the Washington observatory; and Camp Columbia is now a primary astronomic station of the U. S. Geodetic Survey. A triangulation connection was also made with the existing primary geodetic station on Mt. Tom, Conn., so that Camp Columbia now furnishes one more point for ascertaining the true shape of the Geoid.

Professor Jacoby gave a course of astronomic lectures for the first time at the summer session: for this purpose he was in New York five days each week, the remaining two days he spent at Camp Columbia, where he took part in the work of the geodetic summer school.

DEPARTMENT OF BIOLOGICAL CHEMISTRY

Dr. Paul E. Howe, instructor in physiological chemistry at the University of Illinois, has been appointed assistant professor of biological chemistry, *vice* Professor W. H. Welker, resigned. Recent appointments from the staff of the department have been made as follows: Dr. Jacob Rosenbloom (associate), assistant professor of physiological chemistry at the University of Pittsburgh; Dr. Ernest D. Clark (instructor), instructor in chemistry at the Cornell University Medical School; Clayton S. Smith (assistant), assistant in pharmacology, U. S. Department of Agriculture. Dr. Herman O. Mosenthal recently spent a three months' leave of absence at the medical clinic in Tübingen. He worked there under the direction of Professors v. Romberg and Schlayer, observing especially their methods of treating cases of nephritis at the bedside and also investigating the action of diuretics in experimental animal nephritis. Professor Gies has recently delivered public addresses on biochemical subjects at the N. Y. Academy of Medicine and the N. Y. Botanical Garden, and before the Domestic Science and Pure Food Congress. Mr. Joseph S. Hepburn of the U. S. Food and Research Laboratory has been appointed a university fellow in biological chemistry.

DEPARTMENT OF CHEMISTRY

General

The staff carrying on instruction in the department of chemistry (Havemeyer Hall) numbered, last year, twenty-four members. At present the staff numbers thirty-six. Seven members left the staff by resignation, and nineteen members were added.

In connection with the various changes in the building, a new supply room, reached by a speedy passenger elevator, has been installed on the seventh floor of Havemeyer Hall. This floor now contains the apparatus, chemicals, and other supplies. It includes conveniences for washing apparatus and for making up solutions. There, also, a workshop for the construction and repair of apparatus has been fitted up. The instructors and assistants have been relieved of the care of ordinary chemicals, and the whole service of the laboratory now has its headquarters on this floor.

In the beginning of September, the Eighth International Congress of Applied Chemistry met at Columbia University, and about twenty-two hundred chemists, representing every civilized country, were in attendance. The Chandler Museum attracted much attention, and its unique character was universally conceded. Not the least of the results of this Congress will be the starting of museums of a similar nature in many universities throughout the world. The new laboratories of inorganic chemistry were also studied by many of the visitors, and much interest was shown in our methods of teaching elementary chemistry.

At the opening of the year, the course on the physical and biological analysis of water, a course required in the curriculum of sanitary engineering, was transferred to this department, and was placed in charge of Mr. A. M. Buswell.

Inorganic Chemistry

The staff in inorganic chemistry has been changed by the appointment of Mr. Lombard, research assistant, to take the place of Dr. Zanetti, who left in the spring to assume the direction of the Institute of Industrial Chemistry of Uruguay at Monte Video. The staff has been enlarged by the appointment of Dr. Edgar (A.C. Lehigh, Ph.D. Mass. Inst. of Tech.) as an additional instructor in qualitative analysis, and by the following appointments in inorganic chemistry: Dr. Barry (A.B., Ph.D. Harvard) instructor, Mr. Haeseler (B.S. Chicago) assistant, and Messrs. Davis (A.B. Mich. St. N. Coll.), Buswell (A.B. Minn., A.M. Maine), Carpenter (B.S., M.S. Rochester), Punnett (B.S. Rochester, A.M. Columbia), Williams (A.B. Boston), and Birnbaum (B.S., C. C. N. Y.) as laboratory assistants, and Mr. Calvert (A.B., A.M. Oklahoma, M.S. Chicago), as research assistant. Professor William MacCrackan (A.B. Mich., Ph.D. Chicago), who is hearing lectures and studying the work of the department this autumn, is also assisting.

The new laboratories of inorganic chemistry, which were provided by the munificence of Dr. William H. Nichols, were opened for work this autumn. They include three large laboratories: one for elementary inorganic chemistry with one hundred and twenty-eight working places and lockers for five hundred and twelve different students, one for qualitative analysis with ninety-two working places and lockers for three hundred and sixty-eight students, and one for advanced inorganic chemistry with thirty-two working places and lockers for sixty-four students. They include also two larger and seven smaller rooms for instructors, assistants, and research students, and a balance room. The plans of the fittings are in many ways novel. The completion of these laboratories gives to the department adequate facilities for the development of this branch of chemistry.

This year, for the first time, a course in inorganic chemistry, chemistry 3C–4C, in advance of entrance chemistry, and involving laboratory work as well as classroom exercises, has been offered. As, under the four-year curriculum, there is no time for laboratory work in inorganic chemistry in the program of the Schools of Mines, Engineering and

Chemistry, this course can be offered at present to students in Columbia College only. A registration of about thirty was provided for, and the class was placed in charge of Dr. Barry. The appearance of one hundred students showed that there was a very large demand for a course of this kind, while the unexpectedly large registration created an emergency. A large number of additional laboratory assistants had to be found, and apparatus of the value of four thousand dollars was immediately withdrawn by the students from the general stock.

Chemistry 101–102, advanced inorganic chemistry, given by Professor Smith, has shown a remarkable increase in registration. Last year there were eighteen students, three chemists and fifteen graduate students, in the class. This year there are sixty-nine students, of whom thirty-one are chemists and chemical engineers and thirty-five are graduate students.

A new graduate course, advanced experimental inorganic chemistry (103–104), offered for the first time last year, is now accessible to candidates for the degree of Ph.D. as an integral part of their work. Seven students have chosen this as one of their courses in preparation for the degree.

Graduate students specializing in chemistry have usually received their previous training in inorganic chemistry and qualitative analysis in college courses which were intended for the majority who did not afterwards become chemists rather than for the minority who did. To supplement this early undergraduate work in inorganic chemistry is one of the purposes of course 101–102. Hitherto there has been no similar provision in qualitative analysis. This year a new course, chemistry 111, intended to supply this lack, has been offered by Professor Beans. It is entitled Advanced Qualitative Analysis, and deals with the subject in the most thorough and modern fashion. The need for this course is shown by the fact that no less than eighteen students are taking it.

The Royal Society of Edinburgh awarded its Keith medal and prize to Professor Smith for researches on sulphur and on vapor pressures. The prize was presented by the president of the Society, Sir William Turner, at the closing meeting of the year, held on July twenty-fifth.

Physical Chemistry

Chemistry 121–122, the advanced course in physical chemistry, had this year so large a registration that it was necessary to subdivide it into two sections. A section for graduate students was therefore formed, and the adoption of a mode of instruction especially adapted to the needs of such students has become possible. Space has now become available for an undergraduate laboratory of physical chemistry and, as soon as the funds required to fit it up are obtained, a sorely needed addition to the facilities of the department will have been secured.

The research laboratory of physical chemistry is again well filled this year, there being five candidates for the degree of Ph.D. occupying desks in it.

Among those who took their major work for the degree of Ph.D. in this sub-department, Mr. H. E. Woodward (Ph.D. 1912) has been appointed an assistant chemist in the food and drug division of the Department of Agriculture, and is stationed at Philadelphia; Mr. F. T. Owen (Ph.D. 1912) is in charge of the science courses at the Interlaken School; Mr. E. C. Stone is instructor at Trinity College, Hartford, Conn., and will complete some experimental work for his dissertation *in absentia;* Mr. G. A. Bole, after finishing the experimental work of his dissertation, has accepted a position as instructor in chemistry at Alfred University, but will return later to complete the requirements for the doctorate.

Organic Chemistry

The number of students taking organic chemistry during the past summer session is the largest on record. Mr. A. M. Buswell (B.S. Univ. of Michigan, A.M. Univ. of Maine), lately instructor in chemistry at the University of Maine, served as assistant.

The Department has been greatly strengthened by the establishment of a second instructorship in organic chemistry. This has enabled us to regain the services of Dr. H. L. Fisher (A.B. Williams, A.M. and Ph.D. Columbia), formerly an assistant in our laboratory and recently instructor at the Cornell University Medical College.

By the removal to the basement of the work in engineering chemistry, certain of the rooms in what was formerly the industrial laboratory have been made available for organic chemistry. The additional space is most welcome, as the enrollment is the largest in the history of the subject. Many minor changes in details have been made, which increase materially the efficiency of the instruction in the organic laboratory and are of direct advantage to the students and to the staff in their work.

Dr. Nelson is continuing his studies on the electron conception of valence and, in cooperation with the Harriman research laboratories, is investigating the subject of enzyme action. Several papers have already appeared giving the results of these researches.

At the Eighth International Congress of Applied Chemistry, which met at Columbia during the early part of September, various papers giving the results of original investigations were contributed by the three officers of this sub-department (Bogert, Nelson and Fisher). At this Congress, Dr. Fisher was secretary of the organic section and Professor Bogert its presiding officer. Professor Bogert was also chairman of the committee of all the presidents of sections, and vice-chairman of the executive committee of the Congress.

At the annual meeting of the Society of Chemical Industry (of England), held last September, Professor Bogert was elected to the presidency for the year 1912–13, and will deliver the presidential address in England next summer.

Food Chemistry

Mr. A. W. Thomas has been appointed instructor in food chemistry to fill the vacancy caused by the resignation of Mr. R. F. McCrackan to accept a position in the University College of Medicine, Richmond, Va. Mr. Thomas is a graduate of the professional course in chemistry at Columbia (1912), and at the time of his appointment was assistant chemist in the research laboratory of St. Luke's Hospital.

Mr. Alexander O. Gettler, who received the degree of Ph.D. in food chemistry in June, has been made associate professor of chemistry in the New York University and Bellevue Hospital Medical College. Of those who received the A.M. degree in food chemistry during the past year, Mr. M. S. Lewis has returned to Columbia for further work in industrial chemistry, Miss J. A. Moore is research assistant in the Loomis Laboratory, Mr. P. W. Punnett has received appointments as assistant in chemistry both at Columbia and in the University and Bellevue Medical College, Mr. D. F. Renshaw is acting as instructor in chemistry in the Rochester High School, and Miss U. G. Ruth is instructor in chemistry in Hollins College.

During the first week in July Professor Sherman delivered five lectures on food materials and digestive ferments before the graduate school of agriculture conducted by the Association of Agricultural Colleges and Experiment Stations. A revised and enlarged edition of Professor Sherman's "Methods of organic analysis" was published in June.

Electrochemical Laboratory

Research work recently completed in this laboratory includes the following: The action of nitrogen on strontium carbide, S. A. Tucker and Y. T. Wang, presented at the Eighth International Congress of Applied Chemistry in September; the fixation of nitrogen by alumina and carbon, S. A. Tucker and Henry L. Read, presented at the September meeting of the American

Electrochemical Society; and the action of nitrogen on the dissociation products of the carbides, by S. A. Tucker and H. R. Moody.

DEPARTMENT OF CLASSICAL PHILOLOGY

Professor Olcott's death rendered necessary a partial reorganization of the graduate work of the Department. The courses in the early civilization of Italy and in Roman numismatics were discontinued. Dr. Sturtevant has assumed charge of the work in the Italic dialects and Professor Egbert of that in advanced epigraphy. Mr. John R. Crawford, who was called to Columbia last spring as instructor in Roman archæology, will carry on the work in the topography and monuments of Rome and will also offer during the second half year a new course in Roman religion open only to graduate students.

Professor Knapp visited the Hotchkiss School, Lakeville, Conn., for several days early in October and delivered a lecture on "Life in ancient Rome." On October 25 he addressed the Classical Club of Washington, D. C., on "References to literature in Plautus and Terence," and on November 1 spoke before the Classical Club of Normal College.

DEPARTMENT OF ECONOMICS

Professor Seager, as president of the American Association for Labor Legislation, presented a paper before that organization and the American Medical Association at their joint session at Atlantic City in June, on cooperation in promoting industrial hygiene. Professor Robert E. Chaddock presented a paper to the International Congress of Hygiene and Demography at Washington in September, on the reporting of industrial accidents. Professor E. R. A. Seligman has been elected president of the National Tax Association.

DEPARTMENT OF ELECTRICAL ENGINEERING

During the past summer the laboratory equipment of this Department has been increased by the purchase of a 3 k.w. direct current-alternating current 3 phase motor-generator set. This is to be used in the instrument laboratory and is provided with a heavy flywheel, so that momentary variations of the pressure of the supply circuit do not affect its speed. This piece of apparatus constitutes a source of constant frequency alternating current extremely necessary for the standardization work carried on in the instrument laboratory. A 3 k.w. 3 phase rotary converter and a 3 h.p. compound wound motor have been ordered for the machine laboratory. The instrument equipment has been increased by the addition of an Epstein iron testing equipment, and also by three low range Thomson indicating wattmeters, several direct current voltmeters and ammeters and four accurate tachometers.

Professor Slichter has been preparing chapters on the "Design and operation of direct current and alternating current apparatus," which will form part of an electrical handbook to be published by John Wiley & Sons as a companion book to Kent's Handbook. Professors Crocker and Arendt have undertaken a complete revision and re-arrangement of the former's two volume publication on "Electric lighting." They have also commenced the revision of their joint publication "Electric motors," published by D. Van Nostrand & Co. in 1911. Professor Morecroft has recently completed his book "A laboratory manual of alternating currents" and it has been published by Longmans, Green & Co. The book is planned to serve as a laboratory text for the fourth-year electrical engineering students. Mr. F. W. Hehre has prepared a very complete set of notes covering the work of the third year electrical engineering students in the electrical machinery laboratory. While these notes will be published later on, the material is at present distributed to the students in mimeograph form. Mr. F. L. Mason visited the important electrical laboratories in Germany, England and Scotland during the summer.

Mr. F. Keller, assistant during the year 1911–12, resigned last July to take charge of the electrical course at the Newark Technical School. The assistants for the year 1912–13 are Messrs. W. C. Graetz, B.S. Wisconsin 1912, and E. B. Stavely, B.S. Penna. State 1912, who spent the summer acquiring a practical knowledge of electrical testing, the former at the General Electric works in Schenectady and the latter at the Westinghouse works in East Pittsburgh.

The expert and testing work for the City of New York conducted by this department has become a very important factor. It takes not only considerable of Mr. Mason's time as official test officer, but the other officers of the Department are also actively interested in the work. In fact the scope of the City work is growing to such an extent that discussion of the problems encountered therein has been made a part of the regular departmental meetings. During the past three months various types of incandescent lamps and reflectors were tested for the Department of Water Supply, Gas and Electricity of the City of New York. A large number of other pieces of electrical apparatus were examined for the same department, and in addition a number of consumers' meters were tested for accuracy upon complaint from the City Bureau.

Several years ago the officers of this department decided to take up departmental problems at so called departmental meetings. This procedure proved to be so satisfactory, that last fall joint meetings of the officers of the mechanical and electrical engineering departments were instituted, and they will be continued this year. These joint meetings, conducted under the direction of Professors Lucke and Slichter, heads of the respective departments, have resulted in the adoption of uniform rules of procedure in the various laboratories of the two departments, these rules now forming part of the printed report covers employed by both departments.

DEPARTMENT OF INDO-IRANIAN LANGUAGES

Professor Jackson has received, as a souvenir gift from the Parsi Anjuman (synod) of Karachi, India, a beautiful silver frame, 28 by 18 inches in size, enclosing a photograph taken on the occasion of a lecture by Professor Jackson before the entire Zoroastrian community of Karachi during his visit to India in 1911. The lecture was given at the invitation of the High Priest, Dastur M. N. Dhalla, who several years ago was sent to America by his community for scholarly training and received the degree of doctor of philosophy from Columbia after research work in the Indo-Iranian department. On the frame are incised in the original ancient Persian characters the words of Darius invoking the blessings of Ahura Mazda upon those who labor to promote the true religion.

DEPARTMENT OF MATHEMATICS

At the summer meeting of the American Mathematical Society at Philadelphia, September 10–11, Professor Cole presented a paper entitled, "The triad systems of thirteen letters." At the last October meeting of the Society papers were presented by members of the Department as follows: "Contact transformations of space," by Professor Kasner; "Systems of plane curves whose intrinsic equations are analogous to the intrinsic equation of an isothermal system," by Dr. Reddick: "Note concerning a theorem of implicit functions" and "Singular points of space curves defined as the intersections of surfaces," by Dr. Dines.

In addition to the graduate courses in mathematics announced last spring in the appropriate divisional announcement, a new graduate course, "The mathematical theory of statistics," is being given in response to applications for such a course. The course is in charge of Professor Grove.

Professors Keyser and Kasner attended the meeting of the Fifth International Congress of Mathematicians, held last August in Cambridge, England. At this meeting Professor Kasner presented a paper entitled, "Conformal geometry." As indicating American activity in mathematics, it is noteworthy that the representation from the United States at the Congress was larger than that from any other country, with the single exception of Great Britain. The increasing mathematical activity of the United States is constantly reflected in the attendance on the graduate courses offered by the Department at Columbia. Thus the attendance on three graduate courses given in the summer session was twenty-three in 1910; forty-four in 1911; and forty-five in 1912. The number of students attending one or more graduate courses is at present seventy-one, as against fifty-three in 1911. Of the seventy-one, twenty-six are candidates for the degree of A.M. with major interest in mathematics, and seventeen are candidates for the degree of Ph.D. with mathematics as major subject.

Mr. Erik T. Bell, who last year satisfied the scientific requirements for the degree of Ph.D. at Columbia and who was appointed to give instruction in extension teaching, has accepted an instructorship in mathematics in the University of Washington. The extension courses, relinquished by him, have been assigned to Dr. Nathan Altschiller. Mr. E. S. Palmer, last year a graduate student in mathematics, has accepted the professorship of mathematics in Rollins College. Mr. Henry Blumberg, A.B. and A.M. (Columbia) and fellow in mathematics 1909–10, continued the study of mathematics in Europe during 1910–1912 and last spring passed the public examination for the degree of Ph.D. at Göttingen *magna cum laude*. Mr. William M. Smith, Ph.D. 1912, has accepted an assistant professorship of mathematics in the University of Oregon.

DEPARTMENT OF MECHANICAL ENGINEERING

The personnel of the department is slightly changed compared with last year, Mr. T. M. Gunn having resigned to resume professional work on submarine boats with the Electric Boat Co. at New London, Conn., his work in the department being divided between R. J. S. Pigott, the first appointee to the new position of assistant professor of steam engineering, and Mr. E. D. Thurston, Jr., formerly connected with the mechanical laboratory. To replace Mr. Thurston in the laboratory, Mr. G. E. Wieser, Cornell 1910, has come from the American Locomotive Co. Four paid associates, now forming part of the regular staff of the department and replacing volunteers, take responsible charge of instruction in the following subjects: Mr. F. Longacre, of the Ingersoll-Rand Co., air compressors, blowing engines, compressed air equipment; Mr. F. F. Nickel, of the International Pump Co., reciprocating and turbine pumps and pumping engines; Mr. F. A. Halsey, editor emeritus of the *American Machinist,* precision measurements, machine tools and modern shop practice; Mr. L. DeG. Moss, of the Robins Conveyor Co., conveyors, elevators, loaders and unloaders and equipment for the mechanical handling of materials. The course in "Organization and works management," formerly given by volunteer lecturers, has been taken over by Professor Rautenstrauch in addition to his other duties, pending the time when funds become available for the appointment of a professor in this important subject to give undergraduate instruction to engineers and offer graduate courses in cooperation with the departments of economics and sociology.

The catalog library started by the department several years ago to meet the urgent need for reference material on standard machinery of all sorts on which instruction must be given, but which is not to be found in text-books, has grown to such a state of importance and size as to have warranted the appointment of Miss Dixon as librarian. As soon as suitable room can be obtained an engineering library will be opened under her supervision to contain the standard engineering books as well as the catalogs of the present library, together with blueprints of plants and machinery; provision will also be made in it for a student study-room, to which an instructor from the department will be assigned during study hours to assist the students.

The text-book on "Engineering thermodynamics," which Professor Lucke has had in preparation for the past three years, was completed during the summer. Its use has warranted a change in the character of the course by the elimination of all lectures, which will permit not only of better instruction on the subject but of covering a larger field. In the preparation of this work, Mr. E. D. Thurston, Jr., is responsible for the execution of practically all the scale diagrams, the writing of problems and the checking of tabular matter, and he will conduct the instruction for all engineering student sections except the mechanical engineering section, which will be under the direction of Professor Lucke.

Professor H. L. Parr, in charge of the mechanical laboratory, spent the summer visiting engineering schools and industrial establishments in Europe, and reports that so far as laboratory methods are concerned, we have little to learn from the other side. The foreign methods are not as useful to us as they might be by reason of our limited equipment compared to that abroad. Magnificent laboratories are there in operation, others are being equipped on a scale commensurate with nothing in this country, and the money is regarded as well spent. Columbia is especially poor in this respect, even though Professor Parr reports the adoption of some of Columbia's experimental methods by the German laboratories. One interesting phase of the European instruction in engineering is the great importance assigned to mechanical engineering in recognition of the fundamental character of the subject. This is especially true in Germany, where they do not hesitate to say that mechanical engineering is the foundation of all their manufacturing success, a fact just as true in America as it is in Germany, though not so substantially recognized and supported.

Mr. A. L. Herrick, in charge of the courses on water power machinery and experimental hydraulics, spent the summer vacation with the Wellman-Seaver-Morgan Co., Cleveland, O., designers and builders of turbine water-wheels, where he was given an opportunity to study their methods of design and manufacture in all details. His trip has been doubly valuable to the department, as he brings back to it not only a broader knowledge of his subject but a collection of data on specifications, methods of design and results of tests not obtainable in any other way.

During the second half year Professor Lucke will be absent on sabbatical leave and after a short vacation will engage in the practical work of commercially developing his process of gas and oil flameless or surface combustion, which was discovered in the Columbia laboratories.

Department of Metallurgy

The most important development in the department of metallurgy during the past year has been the transfer of the course in assaying from the department of chemistry to the department of metallurgy. The assay laboratories were placed on the sixth floor of the School of Mines building, where a complete equipment of coke muffle furnaces, coal or coke crucible furnaces, and thirty-four gas-fired muffle furnaces, was installed. The plant is an excellent one in every respect, and on account of the manner in which it is arranged, it is possible for the men to do very much more work in assaying than ever before.

During the past summer the field work in metallurgy consisted of visits to various refining plants in the vicinity of New York, to steel plants in the vicinity of Pittsburgh, and to lead, copper, gold and silver plants in the far west. The work was done under the direction of Professor Kern around New York, Professor Campbell around Pittsburgh, and Professor Walker in the west, the class under his supervision going as far as Salt Lake. By this means the students in metallurgy were able not only to see in the field the various metallurgical operations connected with their work, but also to obtain an excellent idea of the magnitude of these operations in this country.

After leaving the class in Salt Lake, Professor Walker went on to the coast, where he visited some metallurgical plants. Professor Campbell, after taking the class through Pittsburgh and Gary, visited the plant of the Lake Superior Iron and Chemical Company at Ashland, Wisconsin, the laboratories of the General Motors Company at Detroit, and the metallurgical department of the University of Michigan. Professor Campbell was delegate from the University of Durham Philosophical Society to the centenary celebration of the Philadelphia Academy of Science, as well as a delegate of the Senate of Durham University to the Eighth Congress of Applied Chemistry. At the Congress of the International Association for Testing Materials he acted as assistant secretary of Section A. Professor Walker was on the committee of Section III–a of the Eighth Congress of Applied Chemistry, and one of the five delegates from this Congress to the meetings of the International Association for Testing Materials.

Department of Mining

During the past year the equipment of the mining laboratories was supplemented by the purchase of a Deister concentrating table for the treatment of very fine slimes. This was purchased from the makers at a generous discount in price and was installed and successfully operated by the students as one of their required laboratory exercises.

During the first half-year an investigation on the operation of jigs of different types for the concentration of low grade ores was conducted in the laboratory under the direction of the head of the department. This investigation will be continued during the coming year.

A large number of additional diagrams and plates to illustrate the lectures on mining were prepared in the photographic laboratory of the Department.

During the past summer thirty-two mining students have been at work in mines in New York, New Jersey, Pennsylvania, Tennessee, Michigan, Colorado, Montana, Nevada and Alaska, carrying on the regular note-taking and sketching, as required for Mining 59. Besides these, five students have received full or partial credit in this course, for work done previously. In accordance with the practice for several years past, the class was divided into squads of from two to six men, assigned to mines at which arrangements had been made in advance. The time devoted to this work in many cases exceeded the minimum requirement of six weeks; eleven gave seven weeks, three gave eight weeks, and three about ten weeks each. The usual mine surveying was done in the early part of June by the entire class in a body, at one of the collieries of the Lehigh Valley Coal Co. It was in immediate charge of Professor Kurtz and Mr. Judd, with five special assistants.

A large proportion of the students did excellent work, both in note-taking and sketching. Many of the sets of note-books contain valuable records of speeds of drilling, blasting, tramming, hoisting and other mine operations. Engineering data of this kind, collected only by painstaking, often tedious, attention to details, will be of value to the members of the class in their future field practice. The thanks of the students and staff of the School of Mines are due to the mine managers and superintendents who have cooperated so cordially in affording the privileges necessary for carrying on this summer work. [For further details see *School of Mines Quarterly,* November 1912.]

Department of Physical Education

Extensive improvements were made to the swimming-pool during the summer. The new filtering plant provides for continuous filtration of the water which is kept in circulation from the pool to the filters and back again. The result is absolutely clear and pure water in the pool at all times. In order to accommodate the increasing number of students and alumni using the gymnasium, fifty-six new steel-lockers were added to the equipment.

The opening of the gymnasium and swimming-pool three evenings a week to the alumni was so successful last year, that the same schedule has been arranged for the present academic year. Instruction in gymnastics, games, boxing and swimming is provided evenings at moderate fees. The use of the gymnasium, handball courts, running track, swimming-pool, a locker and towels is furnished to the alumni for seven dollars per year.

The greatest need of the department at present consists in increased facilities for outdoor exercise for the mass of students who are unable to earn places on the varsity athletic teams.

After nine years of most efficient service, Assistant Professor William Skarstrom left the department to accept the position of associate professor of physical education at Wellesley College. A dinner was tendered to Dr. Skarstrom by his colleagues and a loving-cup was presented to him as a token of their esteem and friendship.

Edward S. Elliott, B.S., M.D., has been appointed instructor in physical education.

DEPARTMENT OF PHYSICS

The teaching staff in mechanics for engineering students has been strengthened by the coming of two new instructors. Mr. Frank Charles Schroeder, B.S., C.E. University of Wisconsin, comes from the University of Washington, Seattle, where he was acting assistant professor of civil engineering. He has had much experience in applied mechanics, having been successively draftsman and inspector for the Bridge and Building department of the C. M. and St. P. Railway, mechanical engineer with the Straus Bascule and Concrete Bridge Co., and bridge designer with the C. M. and St. P. Railway. Mr. Herbert L. Whittemore, M.E. Wisconsin, comes from the testing laboratory of the Watertown arsenal at Cambridge. Since his graduation he has spent a year as assistant superintendent of the Sullivan Machinery Co., N. H., a year in experimental work in Germany, a year with the British Westinghouse Co., and four years as instructor in the engineering testing laboratory of the University of Illinois.

Beginning their work as assistants in physics are Mr. Winthrop Robins Wright, A.B. Michigan 1909, instructor in physics and mechanics in the Georgia School of Technology 1909–12, *vice* Mr. William S. Nelms, who has been appointed to the Tyndall fellowship in physics; Mr. Frederick S. Goucher, A.B. Acadia 1910, A.B. Yale 1911, graduate student in physics 1911–12, and Mr. James Bruce Coleman, B.S. South Carolina 1906, A.M. 1910, student U. S. Military Academy 1906–07, adjunct professor of mathematics, University of South Carolina 1910–12.

Professor Bergen Davis is absent on leave for the first half-year.

The Tyndall fellow for 1911–12, Mr. A. W. Jackson, was on account of illness not able to make use of the fellowship. On the unused stipend, Mr. Benjamin Liebowitz, E.E. Columbia 1911, has been appointed special Tyndall fellow.

At the suggestion of the director of the Deutsches Museum in Munich, Professor Pupin has sent as a gift to that museum one of his "artificial cable lines", a piece of apparatus which he devised to have the electrical properties of fifty miles of underground telephone cable. This apparatus was of prime importance in the investigations which led to the development of the "Pupin loaded line", which has revolutionized long distance telephony.

The halls and most of the rooms in the physics building were refinished during the summer, and extensive improvements were made in the arrangement and equipment of the main lecture-room.

Department of Physiology

Through friends of the University, the final payment has been made on the library of Emeritus Professor John G. Curtis and the books have become the property of the University, forming the nucleus of the library of the department of physiology. The collection is especially rich in complete sets of physiological journals. Professor Lee presented a paper before the International Congress on Hygiene and Demography in September on "The effects of temperature and humidity on fatigue". Professor Pike spent the past summer in England and Scotland, making the acquaintance of the leading British physiologists and their laboratories. He attended the annual meetings of the British Medical Association in Liverpool in July and the British Association for the Advancement of Science in Dundee in September. Before the latter body, he read a paper on "The general condition of the spinal vaso-motor paths in spinal shock". Professor Pike and his co-worker, Professor Wilson of Northwestern University, have received a grant from the Rockefeller Institute in aid of their investigation of the relation between the internal ear and various parts of the brain.

Mr. Ernest Lyman Scott has been appointed instructor in physiology. He is a graduate of Ohio Wesleyan University (B.S. 1902) and received the degree of master of science from the University of Chicago in 1911. He was a fellow and an assistant in physiology at the University of Chicago, and during the past year has been an assistant professor of physiology in the University of Kansas. He has been engaged for some time in investigating the relation of the internal secretion of the pancreas to sugar metabolism. He will continue this research in Columbia, and at the same time will assist in the laboratory work of the students in the school of pure science. Messrs. Henry E. Meleney and William P. Colvin, students of medicine, have been granted Blumenthal scholarships in physiology for the present year, and are assisting in the physiological laboratory.

DEPARTMENT OF PRACTICE OF MEDICINE

Dr. Janeway presented a paper on an experimental study, with Dr. Park, of the question of epinephrin in circulating blood before the Society for the Advancement of Clinical Investigation in Atlantic City in May, and a paper on "The analysis of one hundred cases showing high blood pressure with reference to the cause of death", before the section on practice of the American Medical Association at Atlantic City in June. He took part in the discussions of the Association of American Physicians at Atlantic City in May, and spoke at the annual dinner of the alumni of the medical department of the University of Pennsylvania in Philadelphia in June.

Professor Vogel conducted the usual summer course in clinical pathology. He is engaged in researches in calcium metabolism and on blood coagulation in St. Luke's Hospital. Professor Bovaird spent August and September in England. Professor Longcope read a paper on "The exclusion of various drugs in chronic passive congestion of the kidneys" before the Society for the Advancement of Clinical Investigation in May. Professor Libman presented "A study of the endocardial lesions of sub-acute bacterial endocarditis with particular reference to healing or healed lesions, with clinical notes", before the Association of American Physicians in May. Dr. Jessup has been made consulting pathologist to the Hahnemann Hospital.

Dr. Herrick is investigating the experimental production of eosinophilia. Dr. Park passed the summer in the study of pathology with Professor Schmidt in Marburg. On his return, he resigned from the department of the practice of medicine to become an instructor in the department of pediatrics at the Johns Hopkins medical school. Dr. Woglom is carrying on cancer studies in the laboratory under the auspices of the George Crocker special research fund. Dr. von Huffman has been appointed assistant in clinical pathology to succeed Dr. Irving. He is doing the chemical work for the Sloane Maternity Hospital in the laboratory of the department, and is also carrying on researches on cellular activities, and on the pathology of ectopic pregnancy. Dr. G. A. Carlucci has succeeded Dr. Snyder as assistant in the clinical laboratory of the Vanderbilt Clinic. Dr. H. R. Geyelin, the holder of the Blumenthal scholarship, is studying carbohydrate metabolism in connection with temperature changes, and with pancreatic lesions. Dr. Vincenzo Greco is doing experimental work on the causation of non-infective fever.

DEPARTMENT OF PUBLIC LAW AND COMPARATIVE JURISPRUDENCE

In the retirement of Professor John W. Burgess from the active service of the University, the Department loses its senior professor, who was also its founder. In consequence of the onerous duties thrown upon him as dean of the faculties of political science, philosophy, pure science and fine arts, Professor Burgess had not of late years taken an active part in the work of the Department. The principal subjects upon which he had previously lectured had been assigned to Professors Goodnow and Beard. At the time of his retirement, however, he still held the Ruggles professorship and the chairmanship of the Department. The professorship has not yet been filled; the chairmanship has passed to Professor Munroe Smith.

Professor Goodnow, having completed his labors with the national commission on economy and efficiency, has resumed his regular work at the University. Mr. Powell, who gave some of the courses in constitutional and administrative law last year, has been appointed lecturer in public law in the School of Journalism.

Dr. Harold D. Hazeltine, reader in English law in the University of Cambridge and law lecturer of Emmanuel College, is delivering a special course of lectures in Columbia University on English legal history and is conducting a seminar in the same subject. He is engaged in writing a history of English law, in editing a volume of "Select pleas in English ecclesiastical courts" for the Selden Society, and in bringing out a second edition of his "Law of the air". He is serving on the commission on aerial law which will report at the Madrid meeting of the International Law Association in 1913. Dr. Hazeltine will return to England in January.

Professor Beard published in the spring a volume on "The Supreme Court and the Constitution" and in October a volume on "American city government: a survey of newer tendencies." He has been granted a year's leave of absence, which will be employed in research and writing in Washington, D. C. Several of his graduate courses are being given by Dr. Sait, who has been promoted to an assistant professorship. Mr. Earl W. Crecraft (Ph.D. Franklin 1907) has been appointed instructor in politics, with classes in the School of Journalism and in Columbia and Barnard Colleges. Mr. Dixon Ryan Fox (A.B. Columbia 1911) has been appointed lecturer in politics. He will be occupied mainly in supervising the work of undergraduates who are taking certain graduate courses now announced as college subjects.

DEPARTMENT OF ROMANCE LANGUAGES

By a new arrangement entered into with the University of Paris and the ministry of public instruction of France, the department of Romance languages is to have every year the benefit of the teaching of a young *agrégé* delegated by the University of Paris, who will give three hours of instruction per week, two on a topic of French literary history selected by him, and one on the explanation of French authors similar to that given in France to the students in the courses of *rhétorique supérieure* and to those preparing in the universities for the degrees of *licencié* and *agrégé*. The incumbent of this lectureship for the year 1912–1913 is Monsieur René Galland, professor of English in the *lycée* of Avignon. The selection of this distinguished incumbent is due to M. Liard, rector of the University of Paris, and M. Coulet, director of the National Office of French Universities in the ministry of education.

The reading room of the Romance department has been the recipient of substantial gifts of books from the following French publishing firms: Hachette & Co., Larousse & Co., Delagrave & Co., and Armand Colin & Co. It is hoped that to these gifts will soon be added another from the ministry of public instruction in France.

Professor Jordan has just been honored with a high distinction by the French government, having been made an Officer of Public Instruction.

At the first Congress of the French language in Canada, held in Quebec during the latter part of June, one of the papers, of which an abstract was presented to the Congress, was a ten thousand word monograph on "French literature in Louisiana" written by Mr. Edward J. Fortier.

Professor Cohn has been delivering a course of eleven lectures in Public School 165 on "General history from the fall of the Roman Empire to the French Revolution," in the courses arranged under the Board of Education. Under the same auspices, Professor Loiseaux has been delivering illustrated lectures in various centers on France and Spain.

On October 19 M. René Galland delivered before the National Society of French Teachers in the United States a lecture on the "Teaching of English in the French *lycées*." On November 14 Mr. L. Hourticq, inspector of fine arts of the City of Paris, delivered a lecture in French on "La peinture et les moeurs à Paris au XVIII^{e} siècle."

The Romance Club resumed its meetings on October 15. On that date M. Galland spoke on the studies leading to the *agrégation* in France and on the explanation of French authors as given in French institutions of secondary and higher instruction. On October 29 the meeting was held jointly with the history department in the history reading room. The guest of honor was Professor Rafael Altamira, director of primary instruction in the ministry of instruction of Spain. He spoke in French on the " Ideals of the Spain of today."

The following is a statement of the number of students enrolled in the various courses given by the Department during the year 1912–1913:

Columbia College	305
Barnard College	329
Teachers College	207
Graduate Courses	185
Summer School	330
Extension Courses	228
	1,584

The following is a list of students and former students of the Department who have recently been appointed to teaching positions: L. H. Alexander, Ph.D., instructor in Romance languages and literatures, Barnard College; Armanella Black, A.M., instructor in French, Pittsburgh Female College; John Hart Brown, A.M., instructor in Romance languages, Washington University; Walter Fischer, Ph.D., fellow in Romance languages and literatures 1910–11, instructor in Romance languages, University of Pennsylvania; Caroline Kahn, teacher of French in The Bartholomew-Clifton School, Cincinnati, O.; Mathilde Laigle, Ph.D., instructor in Romance languages, University of Iowa; Frances Latzke, A.B., instructor in French, Indiana University; Angelo Lipari, A.M., instructor in Romance languages, Trinity College, University of Toronto; A. M. Cohn McMaster, A.M., instructor in Romance languages, Williams College; Alexander P. Moore, A.B., instructor in Romance languages, University of West Virginia; H. C. Olinger, A.B., assistant in Romance languages, Lehigh University; Vera Rees, A.B., teacher of French, High School, Watertown, N. Y.; Marcel Vigneron, teacher of French in the Franklin School, New York City; Léonie Vimont, A.M., instructor in Romance languages, Vassar College.

Professor Lanson has just published in Paris under the title of " Trois mois d'enseignement aux Etats Unis " an account of his activities in this country during the early part of the college year 1911–1912. The book is dedicated to President Butler, and contains an interesting and most complimentary reference to the work of the Romance department.

Department of Sociology

In the early part of July Professor F. H. Giddings lectured for one week in the summer session of the University of Utah. He addressed large audiences, also, in the Tabernacle in Salt Lake City and in Ogden on the topic of American political progress. In August Professor Tenney attended and took part in the proceedings of the First National Newspaper Conference, held in Madison, Wisconsin.

Mr. H. N. Shenton has been appointed assistant in sociology. Mr. Shenton is also conducting a course in sociology in the extension department.

* * *

A summary of the gifts in money received during the year by the several corporations included in the University is as follows:

	Columbia University	Barnard College	Teachers College	College of Pharmacy	Totals
For general endowment..	$ 135,000.00	$30,500.00	—	—	$ 165,500.00
For special funds........	949,607.09	15,025.00	$ 431.50	—	965,063.59
For bldgs and grounds...	644,263.14	600.00	—	—	644,863.14
For immediate use.......	446,306.41	1,071.52	19,612.92	—	466,990.85
	$2,175,176.64	$47,196.52	$20,044.42	—	$2,242,417.58

The grand total of gifts in money alone made to the several corporations included in the University for each of the years since 1901 is as follows:

1901–02	$1,082,581.02
1902–03	1,721,895.06
1903–04	1,783,138.18
1904–05	1,960,247.87
1905–06	1,299,909.78
1906–07	1,360,590.80
1907–08	1,077,933.87
1908–09	974,637.07
1909–10	2,357,979.30
1910–11	2,932,655.79
1911–12	2,242,417.58
Total	$18,793,986.32

UNIVERSITY LEGISLATION

The Trustees

October meeting.—The invitation of the State of New York to be represented at the dedication of the State Education Building at Albany on October 15, 16 and 17, was accepted and the President was authorized to appoint representatives of the University.

The invitation of the Trustees and Faculty of Amherst College to be represented at the inauguration of President Meiklejohn on October 16 was accepted, and the President was authorized to name representatives of the University.

The thanks of the Trustees were tendered:

To Mr. Clarence H. Mackay, of New York, for his gift of $2,500 to be added to the anonymous fund for surgical research.

To the anonymous donor of the sum of $1,800 to be applied toward salaries in the department of materia medica and therapeutics for the academic year 1912–13.

To Mrs. Louis K. McClymonds for her gift of $1,300 for the maintenance of the Louis K. McClymonds scholarships in Columbia College for the academic year 1912–13.

To Mr. Alexander Smith Cochran for his gift of $1,000 for research work in the department of Indo-Iranian languages.

To the anonymous donors of the sum of $1,000 to be applied toward salaries in the department of physiology for the academic year 1912–13.

To Mr. Jacob H. Schiff for his gift of $1,000 to be applied toward salaries in the department of social science.

To the members of the Class of 1886, Arts, Mines and Political Science for their gift of $500 to constitute the Class of 1886 Student Loan Fund.

To the anonymous donor of the sum of $250 to be applied toward the support of choral music for the academic year 1911–12.

To the anonymous donor through the dean of the Medical School of the sum of $229.36 to be added to the special equipment fund for pathology.

To the Class of 1887, School of Mines, for their additional gift of $125 to be added to the Class of 1887, School of Mines, loan fund.

To the donors of the sum of $107, received through Professor Hervey, representing contributions to a fund for a collegiate German study.

To George Haven Putnam (doctor of laws, *honoris causa*, 1912) for his gift of $100 to aid intercollegiate debating.

To Mr. William M. Erb for his gift of $75 to be used toward establishing a loan fund for the benefit of worthy and needy students in the Law School.

To Mr. A. Eilers for his gift of $50 to be applied toward the maintenance of the Deutsches Haus.

To the Class of 1912, Columbia College, for their gift of $25 to be added to the Dean Van Amringe Fund for the decoration of Hamilton Hall.

To the following donors to the fund for the equipment of the dramatic museum: Clarence H. Mackay, Otto H. Kahn, Robert E. Dowling, H. C. Chatfield Taylor, Winthrop Ames, George C. Tyler, David Belasco.

To the following donors of books for the Library of the Department of Romance Languages and Literatures: Messrs. Hachette & Co., Messrs. Larousse & Co., Messrs. Delagrave & Co., Messrs. Armand Colin & Co.

To the anonymous donor of the sum of $1,200 to maintain for four years a special scholarship in Columbia College.

To the anonymous donor of a bas-relief, to be placed over one of the side entrances of St. Paul's Chapel.

To Colonel William C. Church for his gift of the Library of John Ericsson, together with a plaster bust of Ericsson.

The President reported the proposal of the Class of 1902 to place in the hands of the Trustees an amount approximating $4,000, as their decennial gift, to be held by them for fifteen years, the annual income to be applied to the support of athletics at Columbia University during that time.

The Trustees authorized the issuing of an invitation for the inspection of the Avery Library Building and a reception therein on the afternoon of Saturday, November 9.

The finance committee reported the authorization of the Supreme Court of the State of New York to change the name of the corporation on and after August 25, 1912, from "The Trustees of Columbia College in the City of New York" to "The Trustees of Columbia University in the City of New York."

The Report of the Treasurer for the fiscal year ending June 30, 1912, was presented and referred to the finance committee for their consideration and report.

The following appointments were made: Daniel Dana Jackson, M.S., lecturer in sanitary engineering; Leonard D. Norsworthy, instructor in civil engineering, *vice* James S. Macgregor, on leave; Arthur Ware, associate in architecture, and George B. Ford, lecturer in architecture. Barnard College—Freeman F. Burr, lecturer in geology, *vice* Niels C. Christensen, resigned, and Juliet Stuart Poyntz, assistant in history, *vice* Emilie J. Hutchinson, resigned.

Otto von Huffman, M.D., assistant in clinical pathology, was promoted to be instructor in clinical pathology.

The resignation of Mrs. Mary S. Woolman, professor of domestic art in Teachers College, was accepted.

November meeting.—The President presented his annual report for the year ending June 30, 1912. The report was accepted and ordered printed.

The thanks of the Trustees were tendered:

To the anonymous donor of the sum of $300 to be applied toward salaries in the department of anatomy for the academic year 1912–13.

To Willard V. King for a gift of $200 to be used for the general purposes of the University.

To Edward F. Cole, of the Class of 1886, for a gift of $150 to maintain a special graduate scholarship in history for the current academic year.

To F. Augustus Schermerhorn, of the Class of 1868, for a gift of $67, being the first payment toward a special scholarship in Columbia College.

To the United Typothetae of America for the gift of a bronze bust of Theodore Low DeVinne, A.M. (hon.) 1901, together with a marble pedestal.

The President reported the receipt of a gift to the Law Library of nearly 1,500 volumes, made by Howard Townsend, as executor of the estate of the late Maria L. Campbell, the books having been the property of her late brother, Robert Bayard Campbell, of the Class of 1844.

The President reported that a movement had been begun at The Hague, in May, 1912, for the purpose of raising funds for the establishment at Columbia University of a lectureship to be known as the Queen Wilhelmina lectureship in the Dutch history, language and literature, and that $3,500, one half of the required amount, had been raised in Holland.

The report of the treasurer of the Vanderbilt Clinic for the year ending June 30, 1912, was presented and accepted.

William H. Woglom, M.D., was appointed assistant professor, to be engaged in cancer research, and Fordyce Barker St. John, M.D., was appointed instructor in clinical surgery at the Presbyterian Hospital.

The following appointments were confirmed: Franklin Matthews, associate in journalism; Frank S. Mathews, instructor in surgery, *vice* A. S. Vosburgh, resigned; Karl A. Connell, instructor in surgery; Gaston A. Carlucci, assistant in clinical pathology, *vice* Peter Irving, resigned; Frank C. Becker, lecturer in philosophy, and Alexander Lowy, laboratory assistant in electro-chemistry.

The President reported the election of Professor John Dewey as delegate to the University Council from the faculty of philosophy, to succeed Professor Woodbridge, appointed dean.

The following leaves of absence were granted: (For the year 1912–13) Professor Carlton C. Curtis; (for the second half year 1912–13) Professors Marston T. Bogert and Felix Adler.

The resignation of Miss Grace Fulmer, assistant professor of kindergarten education in Teachers College, was accepted.

ATHLETICS

With the opening of College on September 25, all athletic activities were immediately started on the campus. New coaches were secured for five of the Varsity teams, with the result that for the first time in years every team is now under the guidance of a competent coach.

Crew

Coach Rice decided to omit fall rowing for the Varsity crews, with the result that the freshman squad received his entire attention. About sixty-five candidates reported, and although it is early for predictions, the material looks promising.

Track

The fall season is always a busy one for track enthusiasts. With the interclass games and the sophomore-freshman meet, all track candidates had ample opportunity to show their ability. The interclass games were held on October 26, and were won by the class of 1914. The sophomore-freshman meet was won by the sophomores on October 30 by the score of 67 points to 50.

Tennis

Eighty men entered for the championship in singles and twenty-two men for the doubles, the largest entry for any championship ever held on the campus. The singles championship was won by J. S. O'Neale, Jr., '14C, who defeated F. Conger, '15L, in the final match by the scores of 6–1, 6–3, 5–7, 5–7, 6–1. The doubles championship was won by A. L. Bernheim, '14C, and H. Adler, '14C.

Baseball

The second annual series for the Eddie Collins medals was started on October 2. The law school team played its schedule with four victories and no defeats, thereby winning the championship. Following is the standing of the teams.

	Won	Lost	Tied	P.C.
Law School	4	0	1	1.000
Sophomores	3	1	1	.750
Seniors	2	2		.500
Freshmen	1	3		.250
Juniors	0	4		.000

Soccer

That Columbia is coming back to her own in this branch of sport is evidenced by the number of candidates playing every afternoon on South Field. The fall schedule started on October 19, when the Varsity played the championship Cameron F. C. Team to a tie score. On November 9 the team journeyed to Princeton and defeated the team from Old Nassau by the score of 4 to 1.

Committee on Athletics

Mr. Charles H. Mapes has resigned from the University Committee on Athletics, creating a vacancy in the committee and in the chairmanship. President Butler has appointed Dr. Reginald H. Sayre to the committee vacancy thus created, and Morton G. Bogue, already a member of the committee, to the chairmanship.

ALUMNI RECORD

The **Monday luncheons** for Columbia men were resumed in the new quarters of the Lawyers' Club at 115 Broadway, New York, on October 7, 1912. The average attendance at these luncheons is about thirty.

The **Class of 1904** has inaugurated a series of lunches of its own, designed to bring the members of the class into closer touch socially. Once a month about twenty-five members of the class lunch at the Garrett Restaurant, 90 West Street, New York.

On October 18, at the Columbia Club, the **Early Eighties** were hosts at the first dinner ever given by an alumni organization to representatives of all the undergraduate athletic activities of the University. President Sayre, '81, of the Early Eighties, presided, and the speakers were Dean Van Amringe, Francis S. Bangs, '78, Professor Herbert G. Lord, chairman of the University Committee on Athletics, Reed, '84, Fisher, '04S, Kiendl, '10, Babcock, '12, Jaques, '13, Bonsib, '14S, Beatty, '14S, and Coaches Lauder, Wefers, and Rice.

The **Association of the Alumni of Columbia College** held a very successful annual meeting on October 28 in the rooms of the Aldine Club, New York, with a large attendance. Officers for 1912–13 were elected as follows: President, William A. Meikleham, '86; vice-president, Ernest Stauffen, Jr., '04; treasurer, George Earle Warren, '03; secretary, George Brokaw Compton, '09; representatives to the Alumni Council (to serve three years from October, 1912) Channing R. Toy, '04, (to fill a vacancy and serve two years from October, 1912) Ambrose D. Henry, '84; members of the standing committee, to serve until October, 1915, Arthur Turnbull, '86, Ellery O. Anderson, '97, R. Stuyvesant Pierrepont, '05, Edgar H. Osterhout, '10.

Chairman Ambrose D. Henry, '84, read the annual report of the standing committee, which contained many interesting and valuable suggestions. Treasurer Warren, '03, reported a substantial cash balance. Babcock, '12, was greeted with applause when he stepped forward to receive a gold medal presented by the Association " in recognition of his victories for Columbia." A short speech by Mapes, '86, was followed by Professor Herschel C. Parker, '90S, who described his last trip to Mount McKinley, with excellent stereopticon views.

The Columbia Olympians were guests of the **Columbia Club** at its monthly dinner, October 25. Among those present who had participated in the recent Olympic games, either officially or as competitors, were R. H. Sayre, '81, Bartow S. Weeks, '83L, Graeme M. Hammond, '78S, Gustavus T. Kirby, '95S, H. S. Babcock, '12, and A. P. Lane, '13S. After speeches by the guests, Dean Van Amringe, president of the Club, announced an illustrated talk on the Stockholm Games by Kirby, which proved most instructive and entertaining.

George Brokaw Compton, '09

NECROLOGY

Barry, Robert Peabody, '60, died at Clifton Farms, Virginia, on October 9, 1912.

Chapman, Robert Ferguson, '95M, died in New York City, on November 12, 1912, aged seventy-one years.

Clark, William Brewster, '79M, died in New York City, on October 11, 1912.

Corbin, William H., '71L, died at Hartwood, New York, on September 26, 1912, aged sixty-two years.

Darrach, James Aersten, '96F.A., died in New York City, on July 7, 1912.

Frankfield, Emil, '86S, died in New York City, on June 21, 1912.

Hasbrouck, Harold, '01, died in New York City, on August 6, 1912.

Herrick, James B., '57, died at Oneida, New York, on August 8, 1912.

Hubbell, John Jackson, '77L, died at Newark, New Jersey, on August 22, 1912.

Johnston, Edward S., '86L, died at Allenhurst, New Jersey, on September 3, 1912.

Joline, Adrian Hoffman, '72L, died in New York City, on October 15, 1912, aged sixty-two years.

Krollpfeifer, Henry, '75M, died in Brooklyn, New York, on April 12, 1912.

Marshall, Charles Henry, '58, died in Paris, France, on July 3, 1912.

Mills, John Alvey, '86, died at Clifton Springs, New York, on October 9, 1912.

Moore, Charles A., '13, died at Binghamton, New York, on August 31, 1912.

Onderdonk, John C., '82, '83L, died recently in Salt Lake City, Utah.

Parker, Charles Thorndike, '87M, died at South Hamilton, Massachusetts, on August 31, 1912.

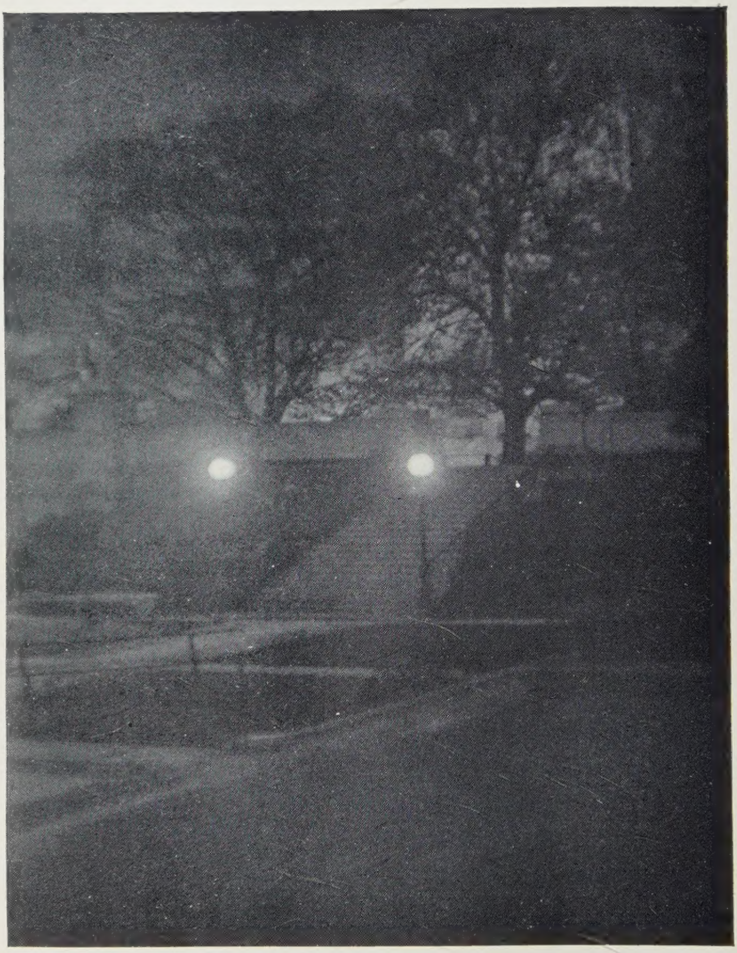
Rogers, Henry Pendleton, '75L, died at Tuxedo Park, New York, in August.

Smith, Daniel H., '73M, died in New York City, in July.

Thomson, David, '73, '75L, died in New York City, on September 24, 1912.

Thorn, L. Mortimer, Jr., '79L, died in New York City, on September 3, 1912.

Tuttle, George M., '80M, died in New York City, on October 29, 1912.



Mary E. Robinson *1912*

EVENING SCENE — SOUTH COURT